NATIONAL STANDARD SQUAB BOOK

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ELMER C. RICE.

THE

National Standard Squab Book.

A PRACTICAL MANUAL GIVING COMPLETE AND PRECISE DIRECTIONS FOR THE INSTALLATION AND MANAGEMENT OF A SUCCESSFUL SQUAB PLANT.

HOW TO MAKE A PIGEON AND SQUAB BUSINESS PAY. DETAILS OF BUILDING, BUYING, HABITS OF BIRDS, MATING, WATERING, FEEDING, KILLING, COOLING, MARKETING, SHIPPING, CURING AILMENTS, ETC.

By ELMER C. RICE.

Illustrated with New Sketches, and Half Tone Plates from Photographs Specially Made for this Work.

BOSTON, MASS.
1906.

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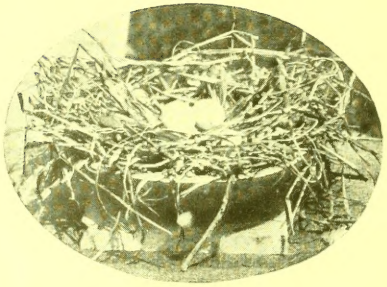

A Well-Built Nest.

Preface.

This Manual or Handbook on squabs is written to teach people, beginners mostly, not merely how to raise squabs, but how to conduct a squab and pigeon business successfully. We have found breeders of squabs who knew how to raise them fairly well and took pleasure in doing so, but were weak on the business end of the industry. The fancier, who raises animals because he likes their looks or their actions, or because he hopes to beat some other fancier at an exhibition, is not the man for whom we have written this book. We have developed Homer pigeons and the Homer pigeon industry solely because they are staples, and the squabs they produce are staples, salable in any market at a remunerative price. The success of squabs as we exploit them depends on their earning capacity. They are a matter of business. Our development of squabs is based on the fact that they are good eating, that people now are in the habit of asking for and eating them, that there is a large traffic in them which may be pushed to an enormous extent without weakening either the market or the price. If, as happens in this case, pigeons are a beautiul pet stock as well as money makers, so much the better, but we never would breed anything not useful, salable merely as pets. It is just as easy to pet a practical animal as an impractical animal, and much more satisfying.

This Manual is the latest and most comprehensive work we have done, giving the results of our experience as fully and accurately as we can present the subject. It is intended as an answer to the hundreds of letters we receive, and we have tried to cover every point which a beginner or an expert needs to know. It is a fault of writers of most guide books like this to leave out points which they think are too trivial, or "which everybody ought to know." It has been our experience in handling this subject and bringing it home to people that the little points are the ones on which they quickest go astray, and on which they wish the fullest information. After they have a fair start, they are able to think out their operations for themselves. Accordingly we have covered every point in this book in simple language and if the details in some places appear too commonplace, remember that we have erred on the side of plainness.

The customers to whom we have sold breeding stock have been of great help to us in arranging and presenting these facts. We asked them to tell us just the points they wished covered, or covered more fully, or just where our writings were weak. They replied in a most kindly way, nearly every letter thanking us heartily, and brimming over with enthusiasm for the squab industry.

It has surprised a great many people to learn that Homer pigeons are such a staple and workable article. They have been handled by the old

methods for years without their great utility being made plain. When we first learned about squabs, we were struck by the impressive fact that here was something which grew to market size in the incredible time of four weeks and then was marketed readily at a good profit. The spread of that knowledge will make money for you. Show your neighbors the birds you buy of us, and tell them the facts, and perhaps give them a squab to eat, then you will find a quick call for all the live breeders you can supply.

The procedure which we advise in this National Standard Squab Book is safe and sound, demonstrated to be successful by hundreds of our customers, many of whom started with no knowledge except what we were able to give them by letter or word of mouth. We have abandoned all instruction which does not stand the test of time and locality and give only facts of proven value, of real, practical experience.

ELMER C. RICE.

Boston, August, 1902.

POSTSCRIPT.

This work has met with so much favor during the past year, and has sold so largely, in excess of expectations, that we wish to thank our friends everywhere for their cordial support. The Appendix A which appears at the back of this edition was added last February, and it is our intention to keep the work up to date by revisions and additions at least twice yearly. The proof of the pudding is in the eating, and the proof of these squab teachings is shown in the successes made by our thousands of customers with no other knowledge of squabs than this as a guide. Our correspondence, now having extended over a long period, shows conclusively that beginners find all questions answered in this book, and go forward confidently and surely to success.

E. C. R.

Boston, August, 1903.

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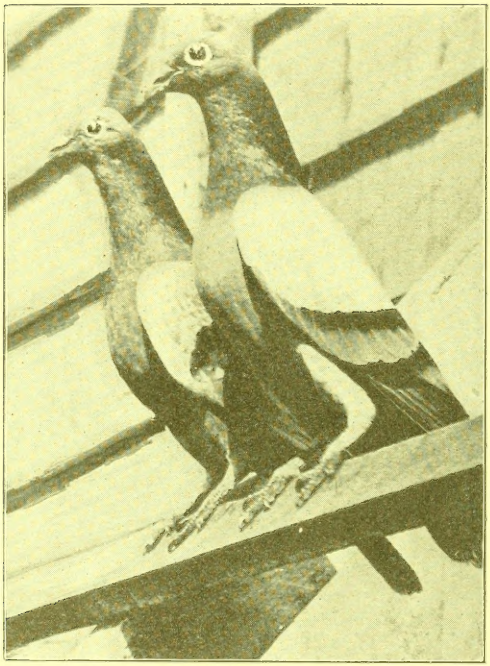


THOROUGHBREDS.

National Standard Squab Book.

CHAPTER I.

SQUABS PAY.

Experience of a Customer who Started in January, 1902, Erected a Plant Worth $3,000 and Made Money Almost from the Start—Settlements of Squab Breeders in Iowa, California, New Jersey and Pennsylvania—Large Incomes Made from Pigeons—Squab Plants Known to be Making Money—The Hard Working Farmer and the Easy Working Squab Raiser—No Occupation for a Drone—No Exaggeration.

"Will it pay me to raise squabs?" is the first question which the beginner asks. We take the case of a man who bought a Manual in January, 1902. His boys had kept a few pigeons but had never handled them in a commercial way, nor tried to make any money with them. The reading of the book gave him the first real light on the squab industry. Possibly he was more ready to believe because he knew from his own personal experience that a squab grows to market size in four weeks and is then readily marketable. Anyway, he started at once to build a squab house according to the directions given. The ground was too hard for him to get a pickaxe into, so he laid the foundation timbers on bricks, rushed the work ahead with the help of good carpenters and sent on his order for breeding stock. In the course of a few weeks he ordered a second lot of breeders, followed by a third and a fourth, and he kept adding new buildings. When spring came and the ground softened, he jacked up his first squab house, took out the bricks at the four corners and put in cedar posts. By the middle of July he had five handsome squab houses and flying pens, all built by skilled labor in the best possible style at a cost of at least $300 apiece. With his buildings and their fittings and his birds, his plant now (August, 1902) stands for an expenditure of between $2,000 and $3,000. His next move, this fall, will be to buy a farm where he can have more room, and which will be auxiliary to his present plant.

This gentleman lives in a locality where he had to put up nice-looking buildings, or the neighbors would have complained. He spent probably three times more money on his buildings than the average beginner would spend. He is a superintendent of a large manufacturing plant, a man of push and energy, and he has four young boys in his family who have helped with the wife and grandfather to make the venture successful. It has been a paying venture almost from the very start. Everything that we wrote about squabs as money makers came true in his case. One of

the sons, a lad of nineteen, came on to see us in August and told us the story of their success. He was after more breeding stock. He said he had many calls from people who wished to buy stock of him, and he was unable to supply all of them, but he did not intend to have money offered him very long without being able to pass out the birds. In other words, they were going into squabs for all they were worth. They had not done any advertising, and had not sold live breeders to any extent, but figured their profits solely on the sale of squabs to commission houses, and they were getting for them just what we said the commission men would pay.

Now if a well-to-do superintendent, filled with no desperate idea of making squabs pay, can start with no experience, throw out money freely like that and depend on his boys mostly to push the venture ahead, all the while attending to a very large business, then we say that you can do it too, no matter who you are or where you live.

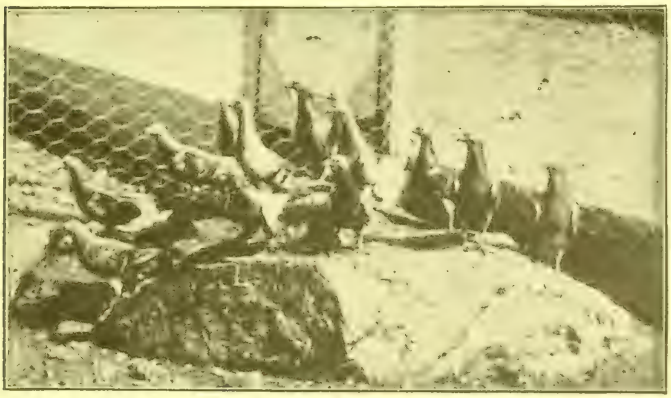
We have a great many visitors, some coming from remote points of the United States. One of our visitors in the summer of 1902 was Mr. A. L. Furlong, from a little town in Iowa. Mr. Furlong said to us: "Iowa is quite a squab-breeding state. There are plants in Ruthven, Osage, Wallake and Estherville. The owner of a plant in Ruthven I know very well. He showed me his account books; he was shipping from $700 to $800 worth of squabs last month. He is making a profit of $3,000 to $5,000 a year. He ships to the Chicago market, as do nearly all the Iowa breeders. He never gets less than $2.50 a dozen for his squabs. I am going to start raising squabs myself."

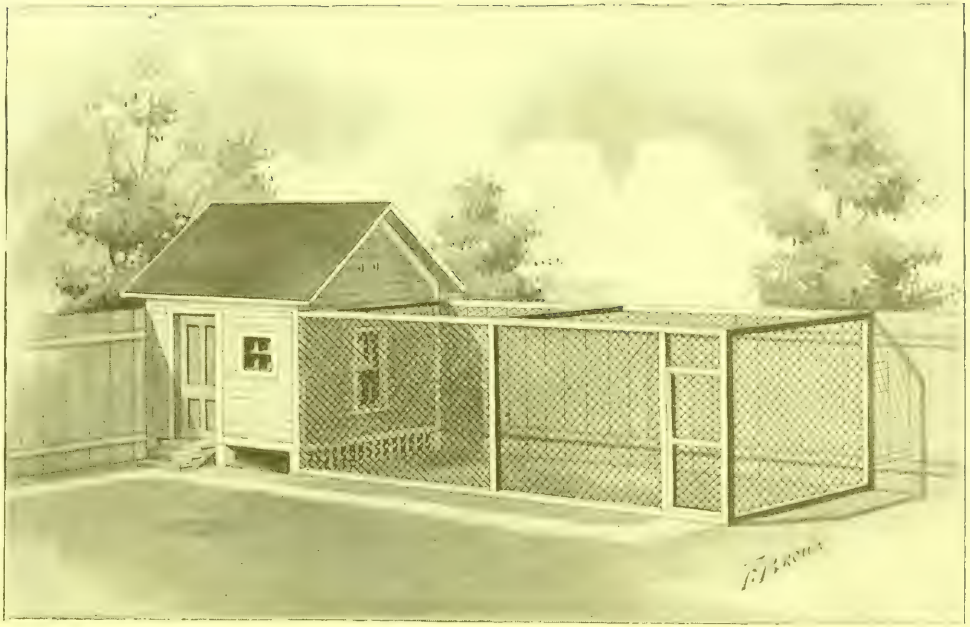
Mr. Furlong left an order for one of our Manuals, having given his first one to his friend. He said that his friend was breeding common pigeons and would like to know our methods. We discarded common pigeons some time ago. If our Iowa friends will use Homer pigeons instead of common ones, they will produce a much better squab and make more money.

We had a curious confirmation of the above in August, 1902, when Mr. E. H. Grice, who lives in the northern part of Vermont, visited us. Mr. Grice had just returned from a visit to the West, and stopped for a while at Ruthven, Iowa, where he saw the plant above noted. The proprietor referred Mr. Grice to us and advised him to start with Homer pigeons, saying that if he were to stock up again, it would be with Homer instead of the common pigeons. Before leaving, Mr. Grice gave us an order for 100 pairs of our Homers.

The number of orders for breeding stock which we have received from Iowa is out of proportion to any state near it, showing that these squab plants are known throughout Iowa to be making money. The same is true of California, also Pennsylvania and New Jersey. In the country around Millville, Mauricetown and Dividing Creek, all in the southern part of New Jersey are hundreds of squab plants. The reason is that it has spread from mouth to mouth there that there is big money in raising these dainties. There are more squab breeders in eastern Pennsylvania and southern New Jersey than there are chicken breeders. We went through

that territory in June, 1902, noting the buildings and methods of the squab raisers there and finding out from them if they were satisfied with the financial returns. All were enthusiastic and said it was easy work, that squabs beat hens easily and were much less care. The methods of some of these breeders were extremely crude, the birds nesting in old boxes of all sizes nailed to the walls of the squab houses, and apparently never being cleaned. With no reflection on the squab raisers of Jersey, but in order to demonstrate our point that the work is easy, we want to say that the typical breeder in that country as we saw him was seated a good part of the time on an old soap box, in or near his squab house, smoking a pipe and taking life easy, with plenty of time to talk or read. Somebody has said that a squab plant of 1,000 pairs of birds will pay better than a farm. The contrast between the hard, grinding toil of the man who works a large farm and the "standing around" of the owner of a squab plant is indeed a striking one. However, we do not speak of this to give you the idea that money is going to flow into your lap just because you buy some squab breeders of us. It is no work for a drone or a "get-rich-quick" person whose enthusiasm runs riot for two weeks and then cools off. Our class of trade is men and women of experience and reliable common sense who have a knowledge of the world and understand that things come by work and not for the asking. The people who are able and willing to pay us from $50 to $500 for a breeding outfit, as hundreds do, are not caught by glittering promises, but have money laid by through exercise of the qualities of ability and shrewdness. The naturally careless, improvident person, who is generally in debt, should not start squab raising. It is a sensible industry for sensible people.





How a Back Yard May Be Fixed for Pigeons.

CHAPTER II.

AN EASY START.

No Special Form of Building Necessary—Points to Remember—Shelter Adapted to the Climate—How to Use a Building Which You Now Have—Squab House and Flying Pen—Lining the Squab House with Nests—Use of Egg Crates—How to Put Up the Perches—Difference Between the Nest Box, Nest Pan and Nest—How to Tell How Many Pigeons Can Occupy a Certain Building—A Large Flock of Pigeons is as Easily Cared for as a Small Flock—How to Use Your Time to Best Advantage.

Do not get the idea that any special form of building is necessary to raise squabs. We will tell you how to put up a structure that will make your work easier for you, and enable you to handle a big flock fast and accurately, but pigeons will work in almost any place, if it is free from rats, darkness and the musty dampness which goes with darkness. Any building, whether a woodshed, a corn crib, a barn, an outhouse of any description, or even a hog pen, can be made a successful home for pigeons with a little work.

The points to remember are these, first, that the building be on fairly level, sunny ground; second, that it be raised from the ground so that rats cannot breed under it out of sight and reach; third, that it ought to be fairly tight, so as to keep out rain and excessive cold. Pigeons ought to have sunlight and fresh air, like any other animal, and need protection from the elements.

In practice, therefore, most squab houses are found raised on posts a foot or two feet off the ground; they face the south (here in New England) because most of our bitter weather comes from the north and east. If you live in a state, territory or foreign country where conditions are different, adapt your squab houses to those conditions. In some localities, the fierce weather comes from the South and West, in which case your squab house should face the North or East.

Here in New England we build a tight house to withstand the cold winters, but in the South the buildings are more open. Be guided by what you see around you in the place where you live. If the houses used by your friends and neighbors for hens and chickens are tight and warm, make your squab house tight and warm. It would be foolish for you, for example, if you live in Texas, to build a strong, tight, close squab house, for in that latitude, in a hen house built tight and close, vermin would swarm and harass the chicks, and they would harass the squabs just as fast.

CHEAP BUT PRACTICAL NEST BOXES.

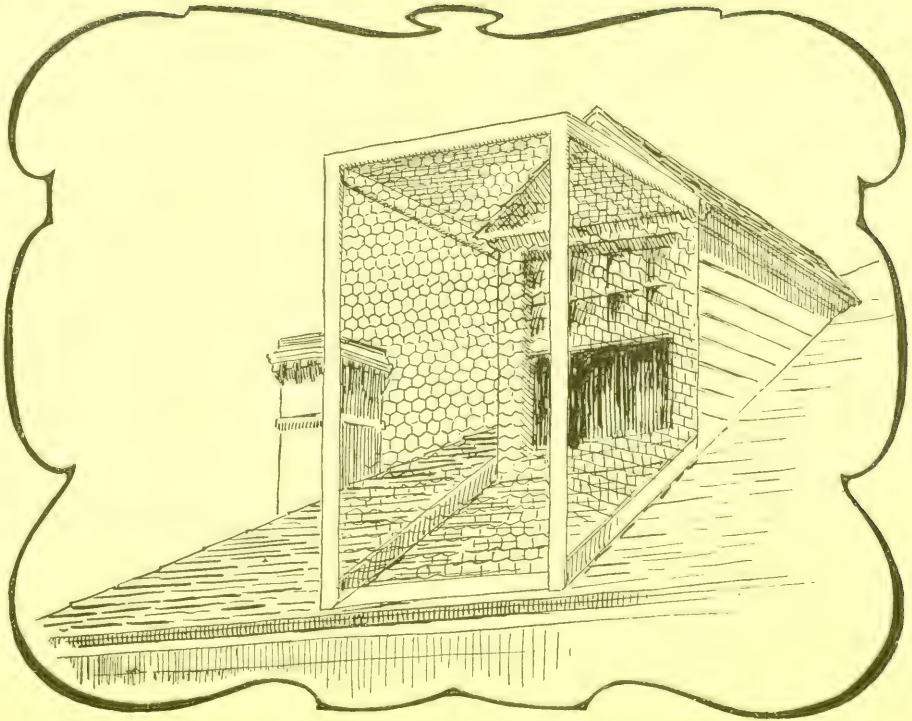
These are empty egg crates piled one atop another from floor to roof of Squab House. Each egg crate is two feet long, one foot wide and one foot deep. The partition in the middle makes two nest boxes, each one foot square. Into each of these nest boxes a wood nappy is placed. The birds build their nests in these wood nappies.

Some of our customers write from places like Oregon and Idaho, where there is a wet and a dry season, and are puzzled to know what to do. In such cases we say, arrange your buildings as you see poultry houses arranged. The pigeons will do as well or better under the same conditions as hens and chickens.

Suppose you have a vacant building or shack of any kind in which you wish to raise squabs. We will take for granted that it has either a flat roof or a ridgepole with sloping roof, and that it is built in rectangular form. Never mind what the dimensions are; our advice will apply to either the large or the small structure.

First raise it off the ground, or build a new floor off the ground, so that rats cannot breed out of your sight in the darkness and get up into the squab house. If there is an old floor, patch up all the holes in it. Now you need one door, to get yourself in and out of the squab house, and you need at least one window through which the pigeons can fly from the squab house into the flying pen and back from the flying pen into the house. You will shut this window on cold nights, or on cold winter days. You must cover the whole window with wire netting so that the birds cannot break the panes of glass by flying against them. If you have no wire netting over the window, some of the birds, when it is closed, will not figure out for themseles that the glass stops their progress, but will bang against the panes at full speed, sometimes hurting their heads and dazing them and at other times breaking the glass.

The flying pen which you will build on the window side of the squab house may be as small or as large as you have room. The idea of it is not to give the birds an opportunity for long flight, but simply to get them out into the open air and sunlight. They enjoy the sun very much and it does them good and they court its direct rays all the time. Build the flying pen, if you choose, up over the roof, so the birds may sun themselves there. If that side of the roof which faces the flying pen is too steep for the pigeons to get a foothold, nail footholds along the roof, same as carpenters use when they are shingling a roof, and the pigeons will rest on these to sun themselves. For the flying pen you want the ordinary poultry netting, either of one-inch or two-inch mesh. The two-inch mesh is almost invariably used by squab raisers, because it is very much cheaper than the one-inch mesh. The one-inch mesh is used only by squab raisers who are afraid that small birds (the English sparrows here in New England) will steal through the large meshes of the two-inch netting and eat the grain which you have bought for the pigeons. You can buy this wire netting in rolls of any width from one foot up to six feet. If your flying pen is 12 feet high, you should use rolls of the six-foot wire. If it is ten feet high, rolls which are five feet wide are what you want. If your flying pen is to be eight feet high, buy rolls which are four feet wide. In joining one width of wire netting to its neighbor, in constructing your flying pen, do not cut small pieces of tie wire and tie them together, for that takes too much time and is a bungling



How City Dwellers Without Land May Breed Squabs.

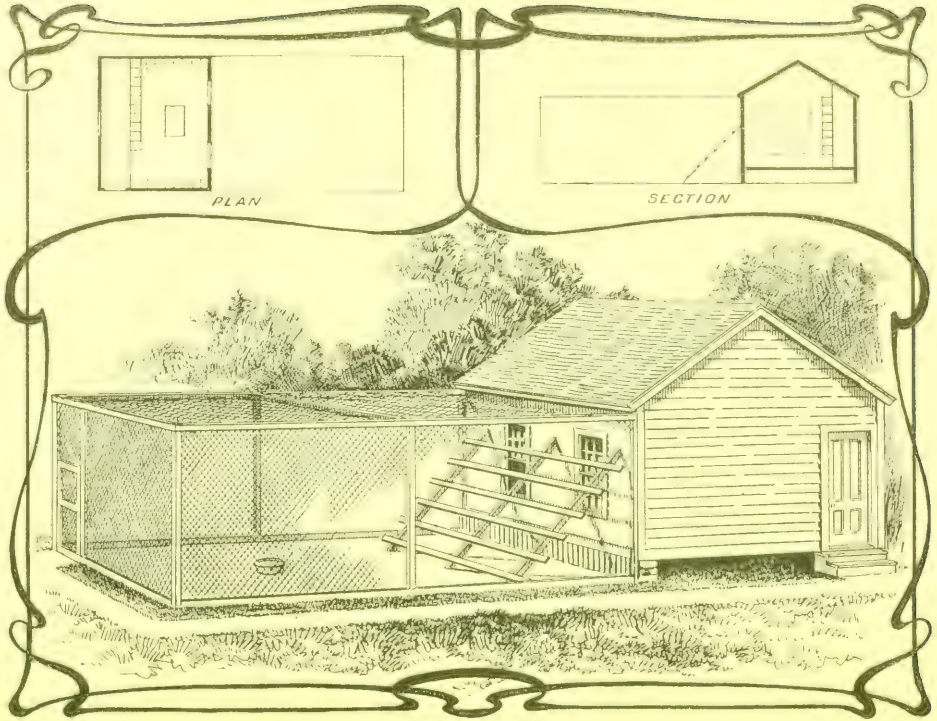
job, but buy a coil of No. 18 or 20 iron wire and weave this from one selvage to another of your wire netting, in and out of the meshes, and you have the best joint you can get, and a ship-shape job.

You can line the three walls of the interior of your squab house with nests if you choose. The fourth wall is the one in which the window or windows are. On this fourth wall you should not have nest boxes, but perches. These perches, or roosts, should be tacked up about 15 inches apart, so as to give the birds room without interfering with each other. The advantage of the V-shaped roost which we advise is that a bird perched on it cannot soil the bird underneath. Do not buy the patent pigeon roosts which you see advertised, for a pigeon roosting on one will soil the pigeon roosting on the one immediately below.

Please note particularly at this point the following terms which we use, and do not become confused. The nest box is something in which rests the nappy or other nest pan in which the nest is built. Do not say or think of nests when you mean nest boxes.

The nest boxes, when done, should look like the pigeon holes of a desk, and should be about one foot high, one foot wide and one foot deep. A variation either way of an inch or two will not matter.

One way to get these pigeon holes is to build them of nice pine lumber, in the form of boxing one-half or five-eighths of an inch thick. Another way is to use hemlock or spruce boards one inch thick. The third way (which we think is the best for the beginner who wishes to start cheapest and quickest) is to use egg crates, or orange boxes. These egg crates are two feet long, one foot wide and one foot deep, but they are divided in the middle by a partition, giving two spaces, each of a cubic foot, and this is just what the squab raiser wants. They are procurable almost anywhere in the United States and Canada brand new for ten or fifteen cents each, and if you buy them after the egg shippers are through with them, you can get them for three to five cents apiece. Some grocers will be glad to have you carry them away and will charge you nothing for them. The crates are built of thin, tough wood and usually are neat and solid. Take off the covers and throw the covers away, you do not need them. Then put one egg crate on its side, open top out, and place another egg crate on top of that, and so on until you have covered the three walls of your squab house from the floor to the roof. Do not use any nails, they are not necessary, the crates will keep in position by their weight. It is an advantage, also, to have them loose, for when you clean the nests, you can step up on a chair or box, take down the crates, commencing with the top, and clean each one with your feet on the floor. If you build a substantial set of nest boxes of boxing or hemlock lumber, you will have to stand on a chair and strain your arms in order to clean the top nest boxes, so you see their are points in the low-priced arrangement not possessed by the fancy kind. It is on the same principle by which a humble small boy with bent pin and worms and an old pole catches more fish than the city angler with a $25 assortment of hooks, lines and artificial flies.



Unit Squab House (with Passageway) and Flying Pen.

It is the pigeons and the intelligence behind them which do the trick, every time. A fancy pigeon house with fancy trimmings cannot produce any better squabs than the home-made affair, provided the birds are the same in both cases.

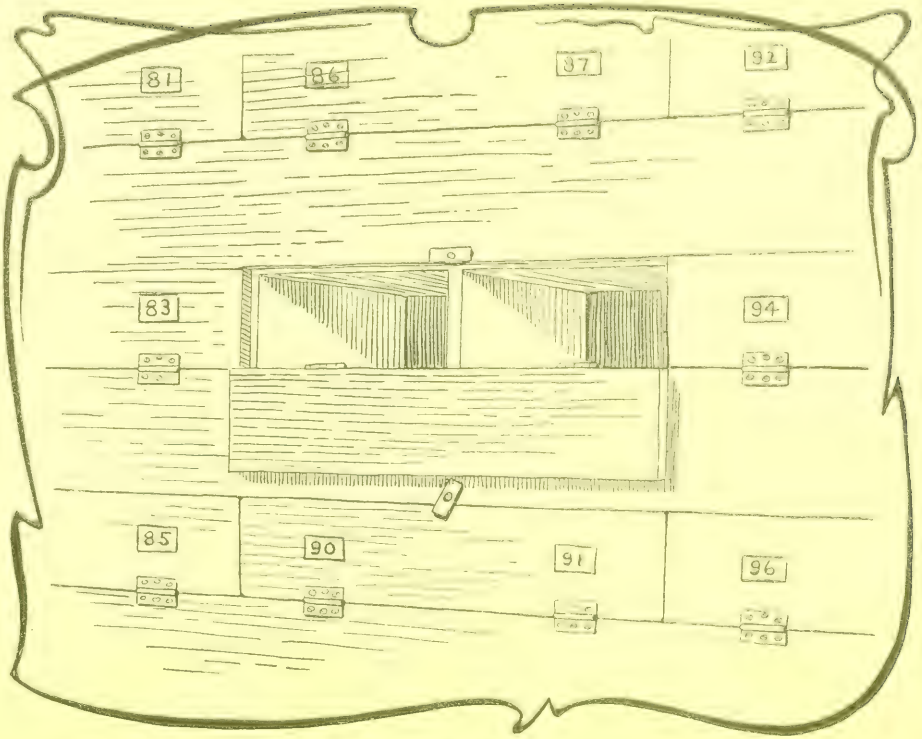
You should have a pair of nest boxes for a pair of pigeons. By a pair of pigeons we mean two pigeons, a male and a female. By a pair of nest boxes we mean two nest boxes. We find that the word pair has a different meaning to people in different parts of the country, perhaps on the same principle that a pair of scissors or a pair of suspenders is one object, while a pair of something else, as in this case, means two objects. A pair of pigeons attend to a pair of squabs in one nest box, nevertheless for each pair of pigeons you need two nest boxes, for when the squabs are about two weeks old in one nest, the old birds will go to the adjoining nest box, or to a nest box in a distant part of the squab house, and begin housekeeping again, laying eggs and dividing their attention between the two families.

Count your nest boxes and you will know how many pigeons your house will accommodate. If your count shows 96 nest boxes (in other words, 48 pairs of nest boxes), you can accommodate 48 pairs of pigeons. Do not write us and tell us that you have a house of a certain size and ask us to tell you how many pairs of pigeons it will accommodate. Put in your nest boxes as we have described and then count them, and you will know. Or you may figure it out for yourself on paper, allowing two nest boxes, each one cubic foot in size, for each pair of birds. To put it in another way, you should allow one cubic foot of nest box space for each breeding pigeon. Surely we have made this so plain now that you cannot go astray.

Now suppose you work backwards, saying to yourself that you wish to order 96 pairs of breeders, and want to know how large a house you will need to accommodate them. From what we have written in the foregoing paragraph, you know that for each pair of pigeons you will need two nest boxes each one cubic foot in size. Therefore for 96 pairs of pigeons you will need 192 nest boxes, or 96 egg crates, or their equivalent in space.

Perhaps your start will be made with so small a number of birds that you will not have to cover more than one wall of your squab house with nest boxes. Cover one wall, or two walls, or three walls, whichever the occasion demands. Have a lot of spare boxes, if you wish, and let the breeding pairs choose where they will. An extra number of nest boxes may be useful to you to accommodate the young birds raised to breeding age from the old birds which you buy of us, if you intend to raise your squabs to breeding age.

An expenditure of not over five dollars, and a couple of days' time, will transform the average old building into a habitation for squabs. Put on the finishing touches and add to the expense to suit your fancy. You may cover the outside of the building with tarred paper and shingle or



View of Nest Boxes from Passageway.

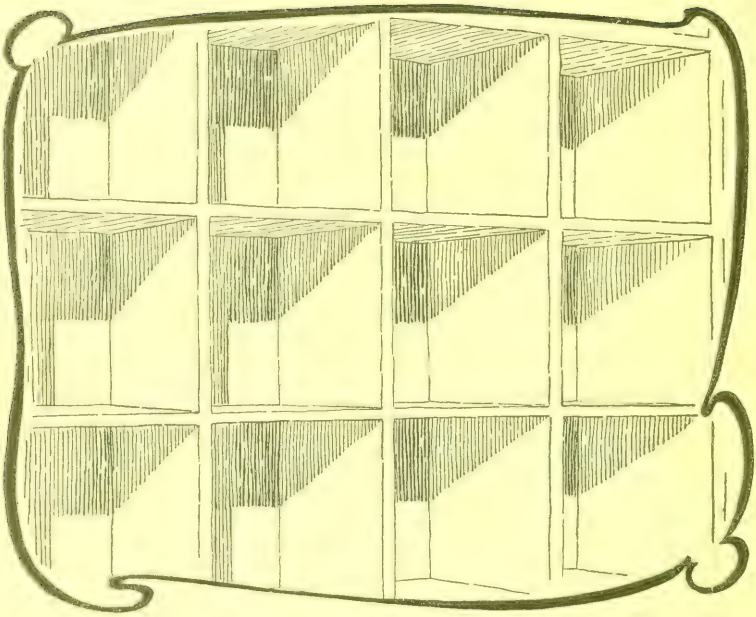
clapboard it. You may put a skylight in the roof to let in more sun. Improve it all you wish. Use your own judgment.

To get at your pigeons in such a house, you walk in through the door and find yourself directly among them, the nest boxes all pointing at you. Go to the nest which you wish to investigate or from which you wish to take out the squabs and put your hand in the opening. The old birds will fly by your head, perhaps, and may strike you with their wings, but they will not fly in your face and eyes, they are good dodgers. Don't be afraid that if you enter the house when the housekeeping is going on you will frighten the birds so they never will come back to the eggs or the squabs. They will seem timid at first, but they will get accustomed to you. In the course of a few weeks, only a few will make a great hustle to get away from you. Many of them will continue to sit contentedly on the eggs and if you put up your hand to them they will not fly off in fear but will slap you with their wings, telling you in their language not to bother them. Carry some hempseed in with you and you will teach the birds to come and eat it out of your hand. You can tame them and teach them to love you as any animal is taught. The pigeon, particularly the Homer, the king of them all, is a knowing bird.

Tack up perches where you have room on that wall or those walls of the squab house which have no nest boxes. You do not need a perch for every pigeon, because while some are on perches, others are in the nests, or out in the flying pen, or on the roof, or on the floor of the squab house. If you have 48 pigeons, 20 perches will be enough, and you can get along with a dozen. Make each perch of two pieces of board, one six inches square, the other six inches by five, and toe-nail the perch to the wall of the squab house as shown in the illustration. You cannot have one long pole for a pigeon perch. If you had such a pole, and your pigeons were perched on it, or some of them were, a bully cock would saunter down the line and push off all the others.

In the centre of the squab house you place an empty crate or overturned box. The object of this is to break the force of the wind made by the pigeons' wings as they fly in and out of the squab house. Otherwise the floor of the squab house would be swept clean by the force of the wind. It also forms a roosting place for the birds, and finally, it is a convenient resting place for the straw, hay and grass out of which the pigeons build their nests.

The floor of the squab house should be kept clean. We used to advise that a layer of sawdust one inch thick be kept on the floor of the squab house, to absorb the droppings, but we have found a steady and profitable demand for pigeon manure, and this manure is worth scraping up and carefully saving, for its sale will pay from one-quarter to one-third of the grain bill. Use a hoe to scrape the droppings from the floor, and pack the manure away in barrels. Clean the floor about once in three weeks, or oftener, depending on the size of your flock. Pigeon manure is in active demand all the time by tanneries. We send the manure from our pigeons



NEST BOXES BUILT OF LUMBER.

This shows the front of the nest boxes as they face the interior of the squab house. They are from ten to twelve inches square, and the same distance deep. A slight variation does not matter. The fronts of the nest boxes are perfectly plain, as shown. It is not necessary to nail up pieces of board to keep the nappies and squabs from falling out. They will not fall out. The backs of the nest boxes may be on hinges, and be approached from a passageway, as shown in the picture on page 20. Or the backs may be solid, in which case you will get at the nests by going into the interior of the squab house.

by freight to tanneries in Lowell, Lynn, Peabody and Danvers, and are paid for it at the rate of sixty cents a bushel.

A peculiarity about pigeon manure is that it is not foul-smelling like hen manure, and when it is mixed with water you get a kind of crude soap. In washing the nappies, no soap is necessary. Use warm water in washing them and the manure caked to them forms a cleansing soap in conjunction with the water. If you have a basket in which you have transported pigeons, and whose bottom is caked with the hard droppings, lay the basket face down and sprinkle water liberally on the underside and the manure will drop off in large pieces from the inside and the basket will become perfectly clean.

In raising live stock of any kind, arrange matters so the animals will look after themselves as much as possible. We all know that automatic machinery has cheapened many articles formerly dear, and the perfect breeding outfit is automatic, needing only a supply of feed and water. Aim to cut down the factor of personal drudgery, so as to leave your time clear to observe and plan, and execute intelligently. Beginners who load themselves down with a daily round of exacting duties soon lose heart, their patience gives out and they become disgusted. We have known breeders of rabbits to fail simply because they raised them in hutches. Each hutch had a door and two dishes, one for feed, the other for water. Every day, the door of the hutch had to be opened, the hutch cleaned, the dishes refilled (and often cleaned), and the door closed. It took 15 or 20 motions to do this for each hutch. Multiply this by 20 to 30 (the number of the hutches), and the burden grew unbearable. It was not surprising that in three or four months the breeder's patience was worn out. The factor of personal drudgery had become greater than the rabbits. The thoughtful breeder would have turned his rabbits into two or three enclosures on the ground and let them shift for themselves. Then one set of motions in feeding would have answered for all, and there would have been no dirt to clean up. Infinite patience as well as skill is required to make a success of animals given individual attention. The aim of every breeder should be to make one minute of his time serve the greatest possible number of animals. When you think and reason for yourself, you understand how much more practical it is to give sixty animals one minute of your time than one animal one minute. Time is money and if you are too particular, and too fussy, and thoughtless about these details, it is a clear case of the chances being sixty to one against you.

At the start, the problem of breeding squabs for market is in your favor, because one hundred pairs of breeding pigeons may be handled as easily and as rapidly as one pair. Try to keep this numerical advantage in your favor all the time. Discard every plan that cuts down the efficiency of your own labor, and adopt every device that will give you control in the same time over a greater number of pigeons.

It takes brains and skilled labor to run a poultry plant successfully.

INTERIOR OF MULTIPLE UNIT HOUSE.

This is one of our houses. The drinking fountains stand in the passageway and their fronts project through the wire netting under the first row of nest boxes. The nest boxes are empty egg crates and do not open at the back. The feed troughs are inside of each pen. In other houses, we set the feed troughs alongside the drinkers in the alleyway and cut away the netting so the birds can feed from them. We like the last arrangement best because the troughs can be filled quicker from the passageway, and the time of opening and closing doors and going into pens is saved.

Every poultryman knows that he cannot entrust the regulation of temperatures of incubators and brooders to an ignorant hired man, but even a boy or girl, or under-the-average farm hand, knows enough to fill up the bath-pans and feeding-troughs for squab-breeders, leaving the time of the owner free for correspondence and the more skilful work of killing and shipping the squabs.

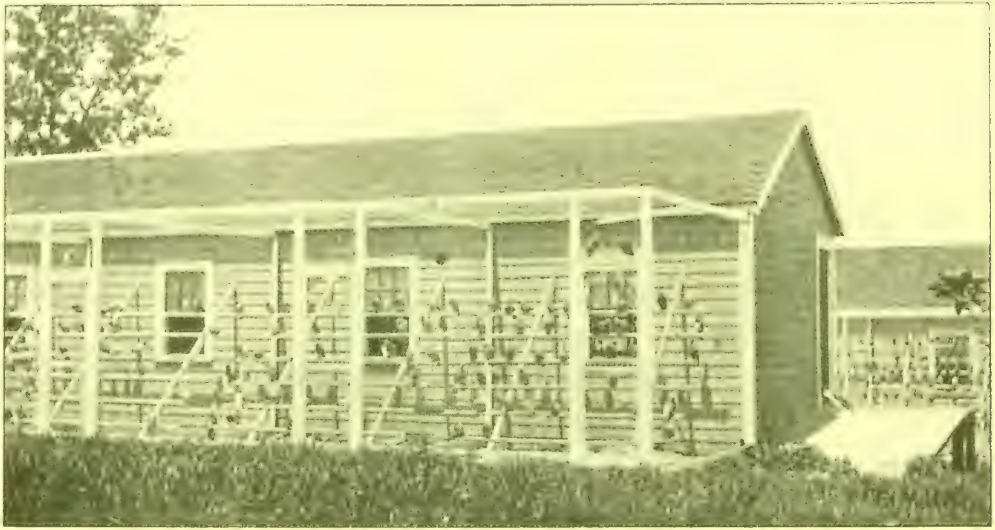
The primary object is to breed squabs for market as cheaply, as easily and as fast as possible, without the expenditure of a dollar for fanciful or impractical appurtenances.

Do not think it is necessary to heat your squab house. A squab house which has the chill of dampness taken off it by hot water or steam pipes will raise more squabs than a house not heated, but a flock of pigeons in a small house throw off considerable heat from their bodies and will breed in cold weather all right. After you have developed your plant and have a large business which you wish to keep at the highest state of efficiency, you may heat your squab house. The idea of heat in winter time is to keep the birds more contented and get more squabs out of them, and not at all to keep them alive. Do not be afraid that your pigeons will freeze to death.

City people can keep pigeons in the garret of a house, or the loft of a barn, without a foot of ground being needed. In such a case the flying pen, or place to which the pigeons go for sun and air, can be built out on a platform. The illustration shows how to utilize a window leading from a garret. If you think that rats will trouble you in either a garret or barn loft, cover the floor inside, especially the corners, with fine wire netting through which it will be impossible for the rats to gnaw from below.

One of our customers in Illinois, a rich horse breeder having a barn some 200 feet long, has turned the whole upper story into a loft for pigeons. The flying pen takes in the whole back of the barn. There are windows and no doors on this side of the barn, the horses using doors on the other side, so this leaves the upper story of the barn, and its whole back yard, free for the pigeons.

How We Rig Our Shipping Baskets for Twelve Pairs.



MULTIPLE UNIT HOUSE.

Extend this construction 100, 200, 300 or more feet to form a big plant.

CHAPTER III.

THE UNIT HOUSE.

Best Possible Construction for a Squab Plant—The Wind Break Formation of Roof—Dimensions of the Unit—Multiplying the Unit to Increase the Capacity of Your Plant—A Passageway Behind the Nest Boxes—Numbering the Hinged Backs of the Nest Boxes, and the Management of a Card Index to Correspond—Cost of the Unit Construction is from $3 to $5 a Running Foot—Working Drawings—The Nappies.

If you have no building already standing which you can fix over for pigeons, you may erect a simple rectangular structure and line it with nests as we have described in the last chapter. We will tell you in this chapter how to put up the finest kind of a pigeon structure. It is at the same time the most expensive. It is the best, the most workmanlike. In saying that it is expensive, we do not mean that money is thrown away on its construction, for that is not so. It is a fit habitation for a money-making investment.

This best method of construction results in what we call the unit house. You can multiply this unit as many times as you please and get as large a house as you wish, or you may add a unit from time to time, just as you add unit book cases to accommodates the growth of the modern library shelves. You can erect these units separately, or attach one unit to the other, so that you have one long building.

The nest boxes are built of boxing and set in a vertical row at the back of the house, forming a wall between which and the north side of the house is a three-foot passageway. You can buy this boxing at a saw mill all cut, ten by eleven inches, the dimensions of the nest, and if you get it in this shape you can put the boxes together with as much ease as a child builds a doll's house. You will have no doubts as to the squareness and plumbness of the structure when you have it up. Take long lengths of boxing eleven inches wide for the shelving which should form the top and bottom of the nest boxes, then set the 10 in. x 11 in. pieces the proper distance apart. The finished nest will be eleven inches from front to back, ten inches from top to bottom, and about ten inches from one partition to the other (or whatever distance the proper distribution of your nests in pairs permits).

We have found five-eighths inch boxing to be the best suited. Build the nest boxes up from floor to roof perfectly plain, just as the pigeon holes of a desk run.

The nest boxes should be perfectly plain, made of simple boxing in the manner described. Do not build up a piece of boxing at the front part of the nest to prevent the nappy from being pushed out. Early in our experience we built a few nests in this way, but soon changed them over to the simpler form, on account of the difficulty of keeping them clean. The droppings bank up at the front of such a nest box and it is almost impossible to clean thoroughly.

The dimensions of this unit squab house are as follows: Length, 16 feet; width, 12 feet; length of flying pen from end of house to end of yard, 20 feet; distance from floor of squab house to ridgepole, 12 feet; two windows in south wall of squab house, each 2 ft. 2 in. wide and 3 ft. 10 in. high. One window in north wall of squab house, 2 ft. 2 in. wide and 3 ft. 10 in. high. There is a passageway on the north side of the squab house three feet wide, separating the north wall from the vertical row of nest boxes. The door of the squab house opens into this passageway so that you can enter the house without being seen by the birds, and without disturbing them. The backs of the nest boxes are on hinges, so that you may turn them back and reach into the nests to take out the squabs when they are ready for the market. If you wish, you may set up rows of nest boxes on the east and west walls of the squab house and accommodate 50 more pairs. You cannot have a passageway behind these nest boxes on the east and west walls, but will approach them from the front by entering the interior of the squab house through a wire door which leads from the passageway. So, altogether, you can accommodate nearly 100 pairs of birds in such a unit house. In order not to crowd, it is best to put in not more than 75 pairs.

Build the first unit so that you may extend it either to the east or west (as your land lies) to increase your accommodations. Your squab house will always remain 16 feet from north to south, but it may be either 12 feet from east to west, for one unit, or 24 feet for two units, or 36 feet for three units, and so on. We think it is most practical to keep about 48 pairs of birds in one unit, 48 pairs in the next unit, and so on. Of course you may build one long house 16 feet wide and in length any multiple of twelve, and keep all the birds you wish in it, but we do not advise such an arrangement. You can keep track of your pairs better if you split a big flock up into unit flocks.

The hinged backs of the nest boxes open into a pair of nest boxes. By numbering the hinged backs, one number to a nest, you have a means of record keeping which is unequaled. Provide a card index (the cards being blank and 3 by 5 inches in size) and number the cards to correspond with the nest boxes, and on these cards you may keep a record of what the birds in the nest boxes do. These cards, which are perfectly blank except for the numbers they bear, may be kept in a tray such as all the manufacturers of card indexes advertise in the back pages of the magazines and you can pick out any card you wish, or turn to it, at once. It is much better than keeping a record in a book, for you cannot tear out

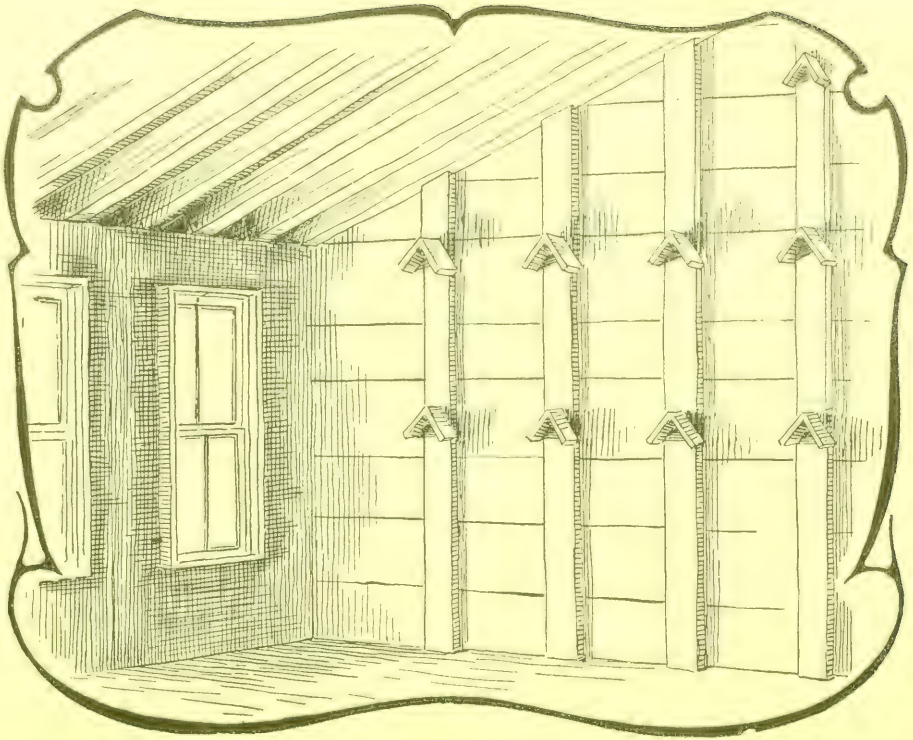
the leaves of a book, as you can throw away a card, nor can you shift one page from one location to another, as you can a card in a tray.

The floor of the squab house rests on cedar posts and is two feet from the ground. The floor is built of two thicknesses of board, with building paper between. The walls of the squab house are built of boards which are covered with building paper and shingled. The roof is shingled. You may use clapboards on the sides, or common boards.

The cost of such a squab house, complete with flying pen and all inside fittings, built in the best possible manner, will be from $3 to $5 a running foot. That is to say, a unit plant 12 feet long will cost from $36 to $60. A plant consisting of three units, 36 feet long, will cost from $108 to $150. We publish and sell for 25 cents complete working drawings showing just how to build a unit complete in every detail. On the same sheet are full working drawings for building a simple squab house (without passageway) to cost from $15 to $25. Also on the same sheet we give data showing how one of our friends built a squab house and pen capable of accommodating 220 pairs of breeders at a cost of $130. In ordering, simply say you wish plans and specifications for squab houses.

In our early plans for the unit squab house, we provided for a building with a "jog" in the roof, making a long, low slope for the south side of the roof, and on this slope the birds would sun themselves and make love. This "jog" construction is more expensive than is needed, and now we have a better way. We have an ordinary pitch roof, sloping equally from the ridgepole to both north and south. We run the flying pen out on the south side, not from the ridgepole, but from the eaves, and then out in the flying pen we erect perches as shown in the picture. The fact that the birds rest easily on these perches (as the photograph in the Appendix shows) is proof that they are contented and pleased by such an arrangement. We have found, too, that they can hear the squeaks of their young for food better than if they were up on the roof, and better attention to the squabs is the result.

Please note particularly that if you erect one long building which will be a multiple of units, you separate these units, both inside and outside of the squab house, not by board partitions, but by wire partitions. For instance, if you have a building one hundred feet long, ten units, you will separate the units by nine wire partitions, these partitions being erected both inside and outside the house.



Interior of Squab House, Showing Perches.

CHAPTER IV.

THE NAPPIES AND NESTS.

Do Not Use the Old-Fashioned Nest Pans—The Six-Inch and Seven-Inch Nappies of Earthenware—Obvious Faults of the Earthenware Nappy—A Perfect Device Found in the Wood Fibre Nest-Bowl, Which the Birds "Take to"—How the Pigeons Choose Nest Boxes.

For nest pans, do not use the heavy, deep, red clay, unglazed dishes which you may see offered for sale as pigeon nests. They are a relic of the past.

In our early experience we used for a pigeon nest-bowl the common kitchen yellow earthenware nappy. We employed two sizes, the six-inch and the seven-inch, changing from the large one to the small one when the squabs were two weeks old. These earthenware nappies filled the bill in being cheap and shallow, and the pigeons deposited their manure in a circle outside and not inside the nest, but they have faults which are obvious. They are flat and not rounding on the bottom and when the female pigeon turns the eggs (as she does daily, same as a hen, in order to give the heat of her body to the whole shell) the eggs are liable to roll apart, making it necessary for the bird to gather them together again, and after two or three mishaps like this she is liable to desert them. The earthenware is cold, breakable and can be kept clean only with water. The washing of the nappies becomes a tedious task and is often neglected.

Later we perfected a nest-bowl made of wood which met every objection raised against the earthenware. We sold thousands of them during the two years we had them on the market and they gave good satisfaction except when some were made of improperly-seasoned lumber, in which case they would crack and split after a few months' use. After study and experiment to remove this objection, we had expensive patterns and moulds made and began the manufacture of these bowls out of wood fibre. Their success was quickly demonstrated and now we sell nothing else. These wood-fibre nest-bowls have all the advantages of the wood bowls and at the same time are practically indestructible, cannot warp or split. The wood fibre of which they are made is thick and exceedingly tough, being solidified under many tons' pressure. After making they are treated with an odorless, anti-moisture compound and then baked to flint-like hardness. We sell these wood fibre nest-bowls in one size only, nine inches in diameter. Price, eight cents each, 96 cents per dozen, $11.52 per gross. Prompt shipment from Boston same day order is received, in any quantity. No order

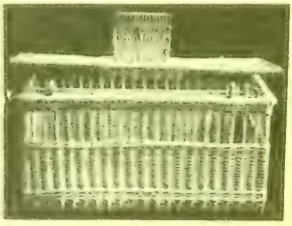
Old Style Pigeon Nest. Water Dish. Large Nappy. Small Nappy.

Do not use either the old style pigeon nest or open water dish.

The Wood-Fibre Nest-Bowl.

This is made in one size (nine inches diameter of bowl). To give stability, the bowl may be fastened to a base by one screw. The first picture shows the perspective view; the second picture shows one-half cut away. This is the most practical nest-pan for squab raising and is having an enormous sale. The bowl may be screwed directly to the bottom of the nest-box. (See opposite page.)

Bath Pan and Drinker



Hand Basket

One bath pan to every 24 pairs of birds is necessary. The hand basket (price $3.50) is used in large plants to carry the squabs from the nests to the killing place. The squabs should not be killed in sight of the parent birds.

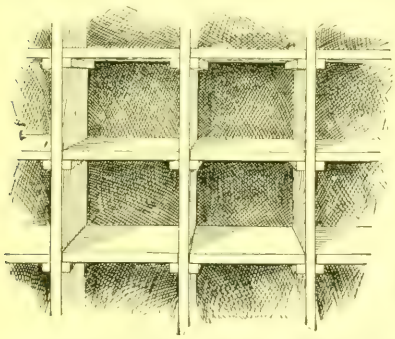
filled for less than one dozen. We have the exclusive manufacture and sale of these goods and they cannot be obtained elsewhere.

The advantages of this nest-pan are these: (1) The eggs roll to the centre and are always close together under the birds. (2) It is warmer than earthenware and eggs are not chilled. (3) It is cleaned without water by means of a trowel, and may then be whitewashed, if desired. (4) The claws of the old birds and squabs do not sprawl, and no cases of deformed legs in the squabs are found. (5) It is unbreakable. (6) When shipped either short or long distances, no packing is necessary, they are lighter and the freight bill is smaller. (7) And finally the birds "take" to them more readily than to earthenware, getting to work quicker and producing more squabs.

We make this wood-fibre nest-bowl in only one size as above specified and illustrated (two sizes are not necessary because the feet of the squabs do not sprawl as in the case of the earthenware nappies). You will need one pair of nappies for every pair of pigeons (in other words, one nappy to every pigeon). If you order 24 pairs of breeders you will need 48 nappies. If you order 96 pairs of breeders you will need 192 nappies.

We know our birds will breed more successfully in these nest-bowls than in earthenware, and to make it an object for you to buy them, you may deduct the freight charges on nest-bowls from your order for birds. First order your nest-bowls sent by freight, then when you order your breeders, send us your freight receipt and count the amount as cash. Or you may order your birds at the same time you do the nest-bowls (and other supplies) and when you get your freight receipt send it to us.

Place one nest-bowl in each one of your nest-boxes. Let the pairs choose to suit themselves. At the end of the month, when you take out the squabs, take out the nest-bowl, clean it and put it back.



It is seldom that our customers build the nest boxes with hinged backs. The solid backs are much more desirable. Many customers who do not use egg-crates or orange boxes, but build their nest-boxes of half-inch or five-eighths lumber, have written us that they used the construction which we illustrate herewith, and which is good, because cleaning can be better done. The bottoms of the nest-boxes are removable and rest on cleats, as the picture shows. The cleats are seven-eighths or one inch square and are nailed to the uprights. When this construction is employed, it is not necessary that you have a block or base screwed to our wood fibre nest

bowl. The nest-bowl may be screwed directly onto this removable bottom. If you use egg-crates or solid-built nest-boxes, you will have to give the wood fibre nest-bowl stability by screwing it to a base of wood seven inches square and about three-quarters of an inch thick.

When the squab house is ready for the birds, each of the nest-boxes has one of these nest-bowls. The pigeons build their own nests in them, taking the nesting material and flying to the nest-bowl with it. The average nest has from one to two inches of straw compactly and prettily laid by the birds. Some birds use more nesting material than others. After the squabs are hatched, they quickly show that Nature never intended them to have a dirty nest. When they wish to make manure, they back up to the edge of the nest and "shoot" outward and over the edge of the nest-bowl into the nest-box, which is just where the breeder wants to find it. In a week or two there will be a circle of solid manure in the nest-box, but it is out of the nest, and off and away from the feet of the squabs. As the squabs grow older, their claws tread and throw out the straw on which they were hatched, and the nest-bowl gets bare again as it was in the first place. The small amount of manure which then sticks to it is removed with a trowel.

The use of this wood fibre nest-bowl has lightened the work a great deal for they never have to be washed. We do not whitewash ours. The work of whitewashing takes time, and we have not found it essential.

The pigeons will not take with mathematical regularity pair by pair the nest-boxes which you have provided. Some of them will take them in pairs, one adjoining the other. This makes it very convenient for you in keeping track of them. Others will take one nest-box in one part of the squab house but go to another part of the squab house for their second nest. Some will not take a nest-box at all, but will build a rough nest on the floor of the squab house and rear their family there. Let them choose for themselves.

The nests are built by the birds of hay, straw and grass. The birds fly to the pile, select what wisps they want, then fly to the nest-boxes and arrange the wisps in a nappy to suit themselves. Tobacco stems are recommended for nesting material, because the odor from them will have a tendency to drive away lice, but they are not necessary if the nappies are used and ordinary cleanliness observed.

The best thing to keep the nesting material in is a berry crate. Fill it with straw and hay (use the fine oat, not rye straw, cut into six inch lengths) and shut down the cover. Then when the birds want nesting material they will fly to the vertical openings in the sides of the berry crates, stick their bills in and make their selection. The cover of the berry crate prevents the birds from soiling the nesting material. They will not build nests with dirty nesting material. It must be first-class, clean, dry and sweet or they will not use it.

CHAPTER V.

WATER AND FEED.

Necessity of Pure Water and Plenty of It—The Kind of Drinking Dish to Use and the Kind Not to Use—Management of the Drinking Fountain and Bath Pan—The Feed Trough and Self Feeder—Feeding Habits—What Grains to Use—How to Mix Red Wheat and Cracked Corn—Use of Grit, Oyster Shell and Salt—How to Feed the Dainties —Keep Feed Before Your Flock All the Time.

Pure water and plenty of it is a great blessing for pigeons. It is the custom of pigeons to get right into water, wherever it is. When they cannot bathe in it, they will stick their dirty feet into it. When they cannot get in their feet, they will douse their heads. They are after water, water all the time. When feeding the squabs, the old bird will fill up its crop with grain, then fly to the water and take a drink, then return and dole out to the squabs the watery and milky mixture on which they fatten. Therefore you should study the water problem and make preparations to give the birds plenty of it, both bathing and drinking water.

The source of drinking water should be separate from the bath pan. They will drink from the bath pan, to be sure, while the water remains comparatively clean, but after a few have bathed in it it is unfit for any bird to drink, and inside of twenty minutes the pan is not only covered with a whitish, greasy scum, but is dyed greenish from the dung which has washed off their feet.

There should be drinking water inside the squab house, provided you have not a running stream or some such clean water device in the flying pen.

The kind of water dish you do not want in the squab house is the kind with the open top, into which the birds can wade, and which they can foul with their droppings. The best device which we have found is the so-called self-feeding poultry fountain, such as we illustrate. This fountain is made either of crockery or tin or galvanized iron. Tin or galvanized iron is better than crockery, because if water freezes in such a dish, the dish will not be cracked. We calculate to use the crockery dishes in houses where it is never cold enough to freeze. It will be seen by examination of the self-drinker that it is impossible for the pigeons to foul the water. The reservoir holds quite a supply of water, which feeds down as fast as it is drunk by the pigeons. We have seen beginners puzzled by these self-drinking dishes; they cannot imagine why the water does

not all run out at once by the bottom hole. It is a simple principle in hydraulics which you may demonstrate to your own satsfaction by filling an ordinary tumbler with water and then inverting it in a saucer of water. There is no way for the air to get to the inside of the tumbler except by passing under the rim at the points where it touches the saucer, consequently it does not flow down unless the water is removed from the saucer, and then it ceases as soon as the water in the saucer rises over the rim of the tumbler again. In fact, some self-drinkers for poultry are made of two pieces of pottery exactly on the principle of the tumbler and saucer. These fountains are not so practical as the fountain which we illustrate, because a pigeon can roost on the top of it and foul the saucer with its droppings. In the fountain which we picture it is impossible for droppings to reach the mouth containing the water, even if the pigeon is perched directly on top of the fountain. The barrel shape of the fountain makes it hard for more than one pigeon to perch at the same time on its top, but one pigeon usually is found there. He gets up there, for the special purpose, it seems, of fouling the water, but the fountain beats him and he can't do it. Neither can he put his feet in the water unless he is an extraordinary gymnast capable of holding his body out at an angle to the perpendicular. The result is, that in actual practice the water keeps clean, and there is a supply of it ready about all the time. A fountain of a gallon capacity will keep two or three dozen pairs of breeders supplied all day. The fountain is filled by turning it on end and pouring water down into the opening. If you fill the fountain at the same time you fill the bath pan in the morning, you will have done your duty by the pigeons for the day.

There are several patterns of self drinkers but the principle of all is the same and you should select a pattern something like that we have described and which appears to you to be best protected from soilings. These fountains are for sale by every poultry supply store in every trading centre.

The best place for the bath pan is out in the yard of the flying pen. A pan 15 inches in diameter is right for a flock up to 24 pairs of birds and it will do for a large flock if you renew the water. The pan should be from four to six inches deep, not over six inches, for a pigeon will not bathe in water where it would be likely to drown if pushed or sat on by its mates. Having the bath pan in position on the ground of the flying pen, you take to it once each day, in the morning, a bucket of water, and pour the water into the pan. Then you can go away to business, if you wish. The pigeons will fly to the pan from the interior of the house, or from the roof, wherever they happen to be. Some will splash right in. Others will perch on the rim and drink before they bathe. When the water gets dirty, they know enough not to drink, unless they are very sorely pressed indeed for water. The water does get quite dirty from the bathing. A thick, greasy, white scum forms. The pigeons do not rustle in the dirt, as a hen does, but rely on the water to keep them clean and

dainty. They flap their wings in the water and enjoy it thoroughly. A pigeon will never run away from water, as you will discover if when you are watering your lawn you turn the hose on them. A summer shower will find them perched on the roof where they can get it. In the winter time, if ice forms in the bath pan, they will break it and bathe.

Let the dirty water stand in the bath pan all day if you choose, or you may go to it an hour or two after you have filled the pan, and empty the water. One bath a day is enough.

If there is a stream of water running through your property handy to your squab house, build your flying pen out over it and you need never trouble with bath pans or drinking water. If it is a deep stream, you will have to contrive a shallow bath tub at the shore, or divert part of the stream into a shallow run. The squab raiser with a stream of water handy should by all means make use of it and save himself the work of carrying water in pails.

The bath pan may rest in a basin, if you choose, and the overflow caused by the splashing of the wings may be conducted to a sewer and drained away. You may conduct water in pipes and have a faucet opening out over the bath pan, which faucet you may control either directly, or from a central station. An easy home-made arrangement to be used in conjunction with the bath pan consists of a wet sink in which the bath pan sits, and out of which the splashed water runs. In the winter it may be advisable to give your pigeons their bath in the squab house instead of in the yard of the flying pen, in which case you should have some device on the wet sink principle to prevent the floor of the squab house from getting damp.

Feed may be given to pigeons in a less guarded way, for they do not soil the feed dish so freely as they do the drinking dishes. You may put the feed in open dishes in the squab house. If you observe them when eating, you will notice that they stand up to the feed dish in a somewhat orderly manner and peck at its contents. They do not sit in the dish and roll around in the feed as they do in the water. But they have one fault when eating from an open dish and that is, to scatter the grains. They will push in their bills and toss them around in a search after tidbits, and scatter out on the floor kernel after kernel, and it will make your bump of economy ache to see this grain scattered around. There do not seem to be any neat, saving pigeons which go to the floor in the wake of their prodigal brethren and eat the crumbs. They all have a fancy to the first table and they get right at it and scatter the grain like the rest of their fellows, and apparently the pigeon who scatters the most grain is the one which struts around with the biggest front. The way to fool them is to provide in the squab house a covered trough, that is, covered except at the slit or points where they stick in their bills for food. With a little ingenuity you can cover an ordinary v-shaped trough so that it will be hard for the pigeons to waste the grain. You may have a self-feeder made

as big or as small as you choose and in which the grain will drop down as it is eaten.

We illustrate one form of self-feeder with which we have had experience. It is a kind that rests on a post in a flying pen. We do not recommend this, however, for general use. We have had many customers who built it and tried it on our recommendation write back to us that the pigeons did not seem to like it. It depends on the flock a good deal. Some flocks take to it naturally on the principle of following the leader, but the average flock of pigeons fight shy of it. Its construction is quite a trouble, often necessitating the calling in of a carpenter. And one cannot be built short of an expense of $3 to $5. Altogether it is not one of the essentials, and experience has taught us that it is best to recommend only the fundamental devices. If you wish to build one, however, go ahead. We show the perspective view as well as the plan, elevation and cross section. If you have a self feeder, either in the squab house or outside on a post, as pictured, you may go away for a few days and have a sure feeling that your pigeons will not starve while you are away.

We will try to present the matter of feed as clearly and fully as it seems to us to be possible. A woman in Santa Cruz, California, said she would like to raise squabs, and would begin by ordering her feed of us, exactly as we recommended, to be sent to her by freight from Boston via the Southern Pacific. A man in Cleveland ordered a quantity of red wheat and cracked corn to be sent by freight from us, when there were thousands of bushels of both staples in elevators in his city, in fact most of the Boston supply had passed through his city. We did not like to run the chance of losing the order for breeding stock either of the woman in Santa Cruz or of the gentleman in Cleveland, but we wrote to both that they ought not to go into the squab raising business if they were to be dependent on us for grain, that it was too far to send and that if they would look around home they could get what they wanted.

Here in New England we feed to pigeons red wheat, cracked corn, hemp-seed, Canada peas, kaffir corn and buckwheat. Sometimes whole corn is used, but this is a poor food for a flock of breeders, for if the big kernels get into the crops of the squabs it will choke and plug them up with a case of indigestion.

All the time people write to us and say they never heard of red wheat. More write and say they don't know what kaffir corn is. Others are puzzled by hempseed, they have never seen any. That is surprising to us here in New England, but no doubt we would be just as surprised if we were in our customers' places.

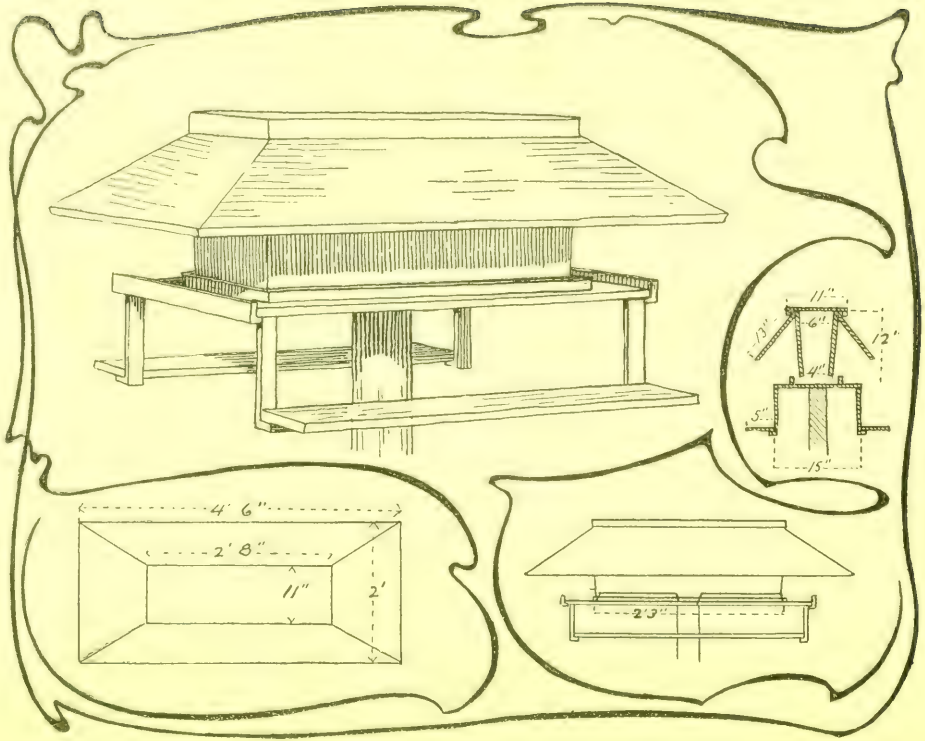
Let us see if we cannot level up the whole country on this question of feed for pigeons. As a rule, we say, feed the grain which is nearest you. This country has its corn belt, its wheat belt, its section where millet is raised. Buckwheat is plentiful in another section. For your leading grain, your staple, select that grain which you can get cheapest and easiest. The point to remember is to feed a variety of grains. Keep this

word variety in your mind all the time in dealing with your pigeons. Their appetites do not grow keen on a monotonous diet and their health will not be good on it. Vary the diet.

In order to find out what grains are convenient to you, go to your nearest grain dealer or country general store. The dealer in nine cases out of ten knows nothing about pigeons and their feed and if you give him the name of a strange grain, he will be liable to shy and say he never heard of it. The trouble with him is that he sells horse feed and is accustomed to handling only the grains which horses need. He can get the grains you wish by writing to his nearest port or railroad junction. There is nothing odd or out of the way about the grains. They are going from one point to another all the time. Sometimes they are scarce at certain periods of the year. For instance, all this summer there has been no kaffir corn at a reasonable price obtainable in Boston, so we have not fed it to our pigeons, but have cut it out altogether in favor of the grains selling at a lower price. Most of the kaffir corn which we get in Boston comes from Kansas. It is a splendid feed for pigeons. It is small and comparatively soft, and their crops make easy work of it. It is nourishing and they like it. Maybe your grain man sells a mixture for pigeons. If you will look in this mixture you will find probably kaffir corn, as well as buckwheat (in black kernels), also red wheat and Canada peas. Do not feed Canada peas in great abundance to a house full of squab breeders. We have fed a bountiful supply of Canada peas to birds and later on found the crops of some of the squabs distended with a great mass of something which on examination was found to be whole Canada peas. The parent birds had simply filled their own crops with the whole peas, then taken a drink of water and gone directly to the young squabs and allowed them to cram their crops full. Squabs are killed by these whole grains which the old birds do not take time to properly break up. If you wish to feed Canada peas in good measure, pound them up with a mortar and pestle into finer form and you will be on the safe side.

For the same reason, we sometimes take cracked corn and pound it even finer than it is when we buy it.

Do not feed an excess of corn, particularly in the summer time. (By corn, we mean common Indian corn, not kaffir corn. Kaffir corn is harmless, even when forced on the birds.) The effect of corn is to heat the blood. This is what you want in the winter time, but not in the summer. If fed to excess in the summer time, it will cause canker in the old birds, which is a sort of diphtheria, filling their throats with a thick, cheesy-like compound, and the throats of some squabs also get filled up in the same manner. By an excess of corn, we mean that corn forms the major part of the diet. In the summer, feed two parts of red wheat to one part of cracked corn. In the winter feed two parts of cracked corn to one part of red wheat. In other words, set before the pigeons in the summer twice as much red wheat as cracked corn, in the winter time twice as much cracked corn as red wheat.



Showing How to Build the Self-Feeder.

White wheat fed to pigeons here in New England causes scours or diarrhoea, but we have customers in the West who write us that they are feeding white wheat with no bad effects. Use red wheat and you are absolutely sure that your pigeons will not have diarrhoea.

All the grains which you feed should be old, hard, dry and sweet. If they smell sour or taste bad to your own tongue, don't feed them to your pigeons. Above all, keep your grain dry. If you have the grain stored in bins which are damp from ground water, or which catch the drippings from the eaves, or through holes in the roof, first you will get sour grain and then some of the grain will sprout, and this sprouted grain will derange the bowels of your birds and bring on dysentery. Do not let rank little growths spring up in a dirty squab house or in the yard of your flying pen. Pigeons will peck at green leaves and grass and will not be harmed, but do not give them a chance to peck up sprouted grain and eat the sprout, grain and all, for if they do they will have diarrhoea. A pigeon in good condition and busy with a nest ordinarily will not touch a nasty little green sprout, but in the moulting season, when pigeons are in the dumps generally, and feeling like having a stimulant, they will experiment with these sprouts. Keep the floor of your squab house clean and the yard of the flying pen raked up and you need not worry about this matter.

Ground oyster shell should be placed in a box handy for the pigeons to get at. The purpose of this oyster shell is to provide the constituents of the eggshell. The female pigeon needs it in order to form the egg.

Grit is needed by the pigeons to enable them to reduce to powder the feed which they take into their crops. The muscles of the crop work the grit on the grains and reduce the grains so that they mix with the digestive fluids. There are special grits on the market advertised and for sale at reasonable prices, but if there is a gravel bank near you, or a deposit of fine sand, you do not need to buy grit. Simply cart two or three bushels of the fine gravel or sand into your flying pen and cover the ground with it. It is not necessary to cover the whole space of the ground of the flying pen with grit. Some breeders use pounded glass.

It is poor policy to mix anything but red wheat and cracked corn together. If you make a mixture of peas and hempseed with cracked corn and red wheat, you will find that the pigeons will dig down after the peas and hempseed and toss the other grain around and waste it. The only mixture, therefore, which we feed is a mixture of red wheat and cracked corn. According to the advice we have given, we take a grain scoop or any measure, and in the summer time mix two parts of red wheat to one of cracked corn; in the winter, two parts of cracked corn to one of red wheat.

We call the red wheat and cracked corn staples, because with us in New England it forms the major part of the diet, and is the cheapest. The hemp seed, buckwheat, Canada peas, kaffir corn and millet we call dainties. We do not feed much millet, because we have the other grains,

which are cheapest, but some of our customers in the millet sections of the country feed a good deal of millet. In such cases they look on millet as one of their staples, and the hard-to-get grains are classed by them as dainties. The staple grains of which you will feed the most to your pigeons are the ones which are cheapest for you. The more expensive grains will be classed by you as dainties.

A good way to feed the dainties is to throw them out on the floor of the squab house by hand. You will see the pigeons make a rush for them and eat them with as much relish as a child eats candy. You should feed the dainties about three times a week, throwing handfuls on the floor until you see that the pigeons are satisfied and do not care for any more.

Do not throw any feed on the ground of the flying pen, for the earth is liable to be damp, and this dampness will sour the grain, especially cracked corn, and if the pigeons eat it, they will get sour crops, and the fluids from the sour crops of the parent pigeons will make the squabs sick and perhaps kill them. Do all your feeding in the squab house (supplemented, if you wish, by the protected self feeder out in the flying pen) and your pigeons will not have sour crops.

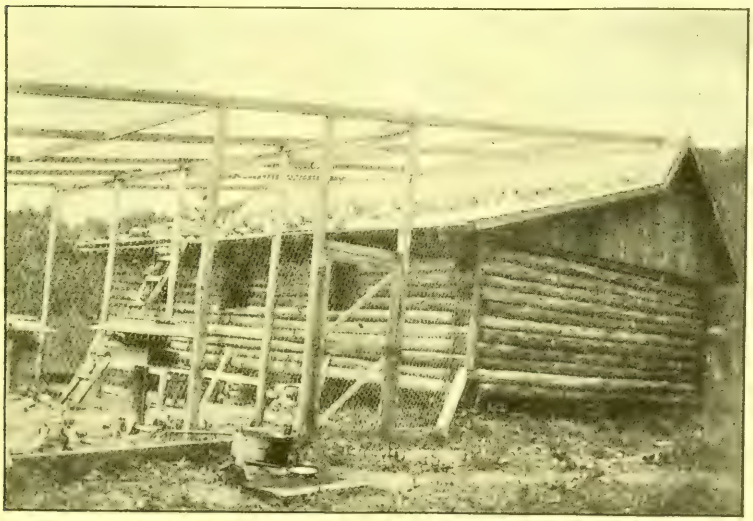
Do not lay in a big stock of cracked corn at a time, for cracked corn exposed to sudden changes of the weather is liable to take up dampness, and sour. Smell and taste it once a week or so and determine to your own satisfaction that it is not sour.

Some squab breeders feed twice a day, as much as the birds will eat up clean, but we do not believe in that system of feeding. Our own success, and the success of our customers in squab raising, is based largely on the fact that we insist on a continuous supply of food for the pigeons. Food should be at hand for them all the time. They do not gorge, as a horse will if an unlimited supply of food is set before him. They are not gluttons, and never get fat and pot-bellied. They always know when to stop eating, and never waste food by eating grain that they do not want. They do not lose their racy shape. A squab when hungry will squeak loudly to inform its parents of that fact and if you observe a squab house where the two meals a day are in vogue, you will note quite a chorus of squeaks. In a house where there is feed always at hand, you will not hear many hungry squeaks. It is greatly to your interest that the crops of your young birds be filled with food. The more their crops are stuffed with food, the quicker they will fatten and the fatter they will get. The parent birds should at all times be able to fill up their crops with feed and water and then fly to the nest to disgorge for the benefit of the squabs.

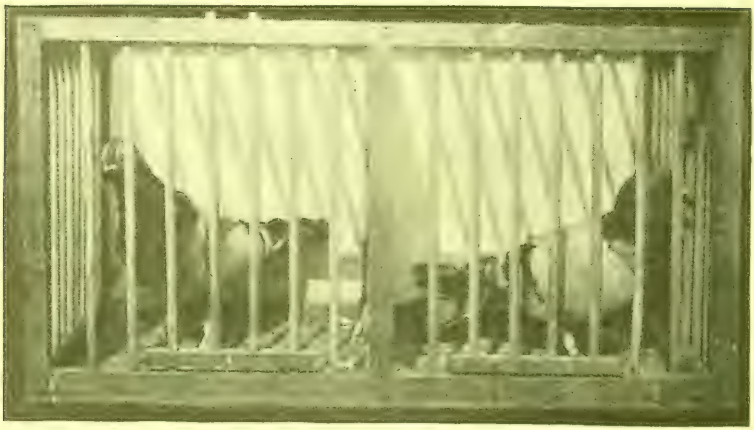
Some small parent Homers are such good feeders, such good fathers and mothers, that they stuff their squabs with grain and bring them up to a surprising fatness. You cannot predict that the squabs from small parents will be small, for this element of stuffing the feed into the young ones is worth taking account of. We have had pairs of squabs which actually at four weeks of age were bigger than their parents. This is not surpris-

ing when you think that the squabs sit in their nest hour after hour doing nothing but accumulate fat, and taking no exercise to train off this fat. The old birds are flying around and do not have much fat on them; they are trim and muscular, and hard fleshed. You can tell an old pigeon after it is cooked when you put your teeth into it, just as you can tell an old fowl.

To close this chapter, we will leave one thought with you which you must not forget, and that is, to provide salt for your pigeons. All animals need salt in order to keep strong and healthy. The safest kind of salt for you to use is rock salt, such as is sold for horses. Put a couple of big lumps of it in the squab house and let the pigeons peck at it when they wish. About once in two weeks wet the grain with salted water, then dry the grain and let the pigeons eat it and they will get it into their systems in this manner. Do not use powdered salt for if you do the birds may eat too much of it and it will kill them. Coarse ground salt may be used, but the rock salt is best.



Squab House Built of Logs.



The Mating Coop.

One way of mating squab breeders is to turn cocks and hens in equal number into the same pen. The mating coop is used when the breeder wishes to pair a certain male with a certain female. The above mating coop is divided by a partition. The cock is placed on one side of the partition, the hen on the other, as pictured. They are left thus for a day or two to tease each other. Then raise the partition, or take it out, and allow them to approach each other when they usually will be found to have formed an attachment. This being the case, they may be put into the large pen with the other birds, where they will find a nest box and go to housekeeping. If they fight when the partition is removed, try again, or try other mates. The coop pictured above is two feet long, one foot wide and one foot deep.

CHAPTER VI.

LAYING AND HATCHING.

Laying an Egg is Under the Control of the Pigeon's Mind—Fertile and Unfertile Eggs—How the Cock Drives the Hen—One Day Between Eggs—Hatch After Seventeen Days—How Squabs are Fed by the Parent Birds—Mating Males and Females—Use of the Mating Coop—Determination of Sex—Color of Feathers Has No Effect on Color of Flesh—Pigeons Left to Themselves Will Not Inbreed—No Inbreeding Necessary Even if You Start With a Small Flock.

The hen pigeon builds the nest. When the nest is built, the cock begins to "drive" the hen around the house and pen. In a flock of pigeons on the roof of the squab house, you always will see one or two cocks "driving" their mates, pecking at them and nagging them with the purpose of forcing them onto the nest to lay the eggs. The cock seems to take more interest in the coming family than the hen.

The hen lays one egg in the nest, then skips a day and lays the second egg on the third day. Seventeen days after being laid the eggs hatch. The egg first laid hatches a day before the second, sometimes, but usually the parents do not sit close on first egg, but stand over it, and do not incubate it. Sometimes one squab may get more than its share of food, and the younger one will weaken and die. This seldom happens but if you see one squab considerably larger than the other, the thing to do is to exchange with a squab from another nest that is nearer the size of the remaining squab. The old birds will not notice the change but will continue feeding the foster squab.

The process of laying an egg is a mental operation. We mean by this that it is not a process which goes on regularly in spite of all conditions. The hen forms the egg in her body and lays it when she wants to, not when she is forced to. In other words, the hen lays when conditions are satisfactory to her. That she forms the egg at will is proven by many things, principaliy by the fact that she allows one day to come in between the first and the second eggs. No doubt, after she has laid the first egg, she hurries the other along and lays it as soon after the first as she can, and it takes 48 hours for the egg, complete in its wonderful construction, to form. Hen pigeons in a shipping crate or close coop do not lay eggs, because they know that there are no facilities there for raising young. Once in a while you will find an egg in a shipping crate when the birds are taken out, but it is a comparatively rare occurrence.

Of course, in order to lay a fertile egg, the hen pigeon must have re-

ceived the attention of the cock bird. It is common for a hen pigeon at five months, and sometimes four, to lay an egg, but as a rule those first eggs from a young hen are not fertile because she has not yet mated with the cock bird. After a hen pigeon has reached six months of age, and is paired with a male, it is safe to assume as an almost invariable rule that the eggs she lays will be fertile. When the male bird gets to be six to ten years old, he may lose his vitality, and the eggs laid by his mate will not be fertile. Then it is necessary to provide the female with a new mate. The breeders we sell are of prime breeding age, from eight months to eighteen months old, and the eggs laid by hens of that age will be fertile, and of full size, and the squabs bred from them will not be scrawny and lacking in vitality.

From the day of its hatching to market time the squab is fed by its parents. The first food is a liquid secreted in the crop of both cock and hen, and called pigeons' milk. The parent pigeons open their bills and the squabs thrust their bills within to get sustenance. This supply of pigeons' milk lasts from five to six days. It gradually grows thicker and in a week is found to be mixed with corn and wheat in small particles. When about ten days old, the squabs are eating hard grain from the crops of the mature cock and hen, which fill up at the trough, then take a drink of water and fly to the nest to minister to the little ones. You see how important it is to have food available at all times.

In 14, 15 or 16 days after the first pair of squabs have been hatched, the cock begins "driving" the hen again. This shows the necessity of a second nest for the pair. In this second nest the hen lays two more eggs, and the care of the first pair of squabs, now between two and three weeks old, devolves upon the cock. When this pair is four weeks old, it is taken out of the nest and killed and both the mature birds are concerned then only with the new hatch. This sequence of eggs and hatches goes on all the time.

If there are not two nests, the two new eggs will be laid in the nest where are the growing squabs and the parents in their eagerness to sit on the new eggs will push the squabs out of the nest and they will die for lack of sustenance.

The hen lays the eggs about four o'clock in the afternoon. The cock and hen take turns at covering the eggs, the hen sitting during the night until about ten o'clock in the morning, when the cock relieves her, remaining on until the latter part of the afternoon.

When the nappies are changed at the end of two weeks, the nest-box should be scraped clean with a trowel. When the squabs are taken out for market at the end of four weeks, the nappy should be washed and scalded and the nest-box whitewashed. If the nappies are changed and the whitewash used regularly, no trouble from parasites will result. In the summer it is well to add a little carbolic acid to the whitewash as an extra precaution. Sprinkle unslaked lime on the floor of the squab house and in the nest boxes.

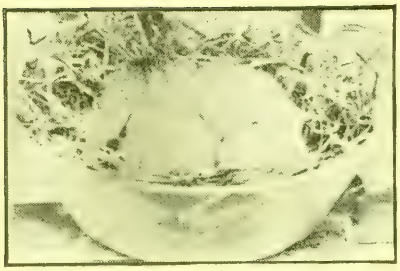
One way of mating pigeons is to turn males and females in equal number into the same pen. They will seek their own mates and settle down to steady reproduction. Another method is to place the male and female which you wish to pair in a mating coop or hutch. In the course of a few days they will mate and then you may turn them loose in the big pen with the others. The latter method is necessary when improving your flock by the addition of new blood, or when keeping a positive record of the ancestry of each pair. By studying your matings, you may improve the efficiency of your flock. If you are raising squabs for breeders, you should use the mating coop constantly so as not to inbreed, which the young pigeons might do if left the chance.

In case a pigeon loses its mate by death or accident, the sex of the dead one must be ascertained and a live pigeon of the same sex introduced to the pen to mate with the odd one. Or the live one should be removed from the pen and placed in the mating coop with a pigeon of the opposite sex.

The mating coop should have a partition of lattice work or wire. Place the cock in one side, the hen in the other, and leave them thus for two or three days to flirt and tease each other, then remove the central lattice work or wire and they usually will mate. If they show no disposition to mate but on the contrary fight, replace the partition and try them for two or three days longer. If they refuse to mate after two or three thorough trials, do not experiment any more with them, but select other mates.

The determination of the sex of pigeons is difficult. The bones at the vent of a female are as a rule wider apart than of a male If you hold the beak of a pigeon in one hand and the feet in the other, stretching them out, the male bird usually will hug his tail close to its body—the female will throw her tail. The best way to determine the sex is to watch the birds. The male is more lively than the female, and does more cooing, and in flirting with her usually turns around several times, while the female seldom turns more than half way around. The male may be seen pecking at the female and driving her to nest. When one pigeon is seen chasing another inside and outside the squab house, the driven one is the female and the driver her mate.

Neither the squab-breeder nor the flying-Homer breeder is much concerned about the color of feathers. There are blue checkers, red checkers, black checkers, silver, blue, brown, red, in fact about all the colors of the rainbow. Color has no relation to the ability of a pair to breed a large pair of squabs. We wish specially to emphasize the fact that the color of the feathers has no influence on the color of the skin of the squab. A white-feathered bird does not mean a whiter-skinned squab. The feed affects the color of the meat a little. A corn-fed pigeon will be yellower than one fed on a mixture. Squabs with dark skins (almost black in some cases) are the product of blood matings. The trouble with a dark-colored squab is in the blood and the only remedy is to get rid of them either by killing the parents or by remating. Usually the trouble comes from one parent bird, which you can find by turning up the feathers and



One Week Old.

So rapidly do squabs grow that you will quickly notice their increase in size from day to day.

Two Weeks Old.

Three Weeks Old.

Four Weeks Old.

examining the skin. Having found the bird which is at fault, kill it. This point has come up continually in our correspondence. The erroneous belief that white-feathered birds produce the whitest-skinned squabs seems to be widespread and we are asked sometimes for a flock of breeders "all white." Our experience with all white Homers is that they have less stamina than the colored ones. (This is also the experience of poultrymen with all white fowls; they are not hardy.) The marketmen will take two or three pairs of dark-skinned squabs in a bunch without comment, but an excess of dark ones will provoke a cut in price. Breeders who are shipping only the undressed squabs should pluck feathers now and then to see just what color of squabs they are getting. The dark-colored squabs are just as good eating as the light-colored ones, but buyers for the hotels and clubs, and those who visit the stalls generally, pick out the plump white-skinned squabs in preference to the plump dark-skinned ones. As a rule, squabs from Homer pigeons are white-skinned—the dark-colored squab is an exception.

Many beginners wish to know if it will be all right for them to buy a flock and keep it in one house for six months or a year, paying no attention to the mating of the young birds, but leaving that to themselves, so as to get without much trouble a large flock before the killing of the squabs for market begins. Certainly, you may do this, providing extra nest-boxes from time to time until your squab house has been filled with nests; then you will have to provide overflow quarters. We are asked if the flock will not become weakened by inbreeding, that is, a brother bird mating up to a sister, by chance. According to the law of chances, such matings would take place not very often. Pigeons in a wild state, on the face of a cliff, or in an abandoned building, would mate by natural selection. The stronger bird gets the object of its affection, the weaker one is killed off or gets a weaker mate, whose young are shorter-lived, so the inevitable result is more strength and larger size. Nature works slowly, if surely. A lot of pigeons in one pen mating as they please when old enough is the natural way, and if you follow this, you cannot go very far wrong. We advocate matings by the breeder because it hurries Nature along the path which makes most money for the breeder. We all know how Darwin studied natural and forced selection of pigeons. He took one pigeon with a certain peculiarity, say a full breast, and mated it to another pigeon with a full breast. The squabs from these birds, when grown, had breasts fuller than their parents. Then these in turn were mated to full-breasted pigeons from other parents, and the grand-children had even larger breasts. Darwin's experiments covered a period of over twenty years and in this time he developed little faults and peculiarities to an amazing degree. Every intelligent, careful pigeon breeder is striving by his forced matings to push along the path of progress the peculiarity in pigeons which is his specialty. The breeder who selects most carefully and keeps at it the longest wins over the others. By selecting from your best and most prolific breeders the biggest and fattest squabs, keeping them for

breeders and mating so as to get something larger and plumper, you are all the time getting bigger squabs. Every breeder of squabs has it in his power to increase the efficiency of his flock by studying his matings. There is commercial satisfaction in breeding for size and plumpness because it pays at once, and at the same time the breeder has the satisfaction of increasing the stamina and variety of pigeons.

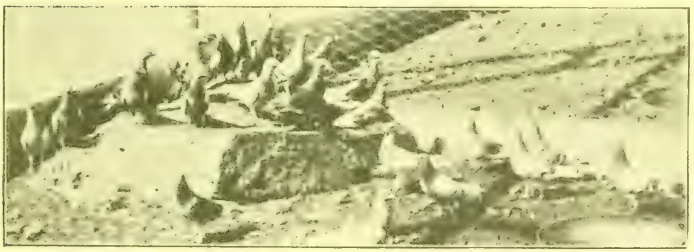
To be master of the matings, the breeder should band his squabs. As soon as they are weaned (that is, as soon as the breeder sees them flying to the feed and eating it) they should be taken and put into a rearing squab-house. When about six months old, the breeder should begin mating them by selection, using the mating coop, then when they are mated turn the pair into a working pen with other adult birds. By looking at the number on the band of each bird, then on your record card, you know how to avoid mating up brother and sister.

When the young birds are just over four weeks old, or between four and six weeks, they are able to fly a little, and if they do not hop out of the nest (or are not pushed out by the parents) you may push them out yourself. They are now able to feed themselves and you should provide an auxiliary feeding trough in the squab house for them. If these young birds are left in the squab house, they will bother the old birds by begging for food, and this infantile nagging will hinder the regular breeders in their next hatch, so the very best thing to do is to put the young birds by themselves in a rearing house, where they cannot bother anybody.

Of course there is likely to be a little inbreeding when you leave the birds to choose for themselves, but not much. If the breeder has not the time to make forced matings, then he may not care to make them. Remember in mating that like begets like. The parent bird that feeds its young the most, and most often, will raise the biggest squab. Sometimes a parent bird will have fine nursing abilities and will stuff its offspring with food. These good-feeding qualities are transmitted from one generation to another and are as much under the control of the breeder as size and flesh-color. Your biggest squabs will be found to have an extra-attentive father or mother, or both. A pigeon with a dark skin, if mated to a white skinned bird will produce a mulatto-like squab. It is the large, fat, white-fleshed squab which you are after. Disregard the color of the feathers when mating. If when plucking your squabs you come across a "nigger," that is, a squab with a dark skin, find out what pair of breeders it came from and whether the cock or the hen is at fault, and get rid of the faulty one. It is important to start with adult birds that are not related, then you will not begin inbreeding. That is why we make a special effort with our adult birds to have them unrelated.

Some letters from customers make plain to us that a clear knowledge of what inbreeding means is not possessed by everybody. Several have written to this effect: "If I buy two or three dozen pairs from you to start, how can I increase the size of my flock without inbreeding ' Now, inbreeding, or breeding in, is the opposite of breeding out (or line breed-

ing). When (1) a brother is mated to sister or (2) a father to a daughter, or (3) a mother to a son, or (4) a grandson to his grandmother, etc., that is inbreeding. We know it is forbidden by law for human beings to mate in that manner, because (a) God in the Scriptures has forbidden it, and (b) because the State does not wish to have to care for the puny, weak-minded offspring that would result from such unions. We all know that the marriages of cousins often result in demented, diseased children. Now suppose you buy two dozen pairs of pigeons of us, and number them Pairs 1 to 24. If you mate the offspring of Pair 2 (or any other pair) to the offspring of Pair 1 (or any other pair) that is outbreeding. What you do not do, and what you try to prevent, is the mating of the offspring of Pair No. 1 (or any other pair) to each other. So, you see, if you have a dozen or two pairs, you need never inbreed, for there is an infinite variety of matings possible. Breeders of animals sometimes inbreed purposely in order to get better color of fur or plumage, or finer bones, etc., but what is gained in these respects is lost in size and stamina. Fowls hatched from studied inbreedings often are so weak that their progress across the barnyard is like the tottering, falling progress of a drunkard. There are no brothers and sisters in the flocks we sell. If you buy one dozen or twenty dozen pairs of breeders of us, the pairs will be unrelated, and you need never inbreed.



TWO VIEWS OF OUR HOMERS.

The Homers we sell are extremely plump and full-breasted and breed the fattest and highest-priced squabs in the market.

CHAPTER VII.

INCREASE OF FLOCK.

It Is Possible to Breed One Pair of Squabs Each Month, but in Actual Practice This Is Seldom Attained—The Squab Raiser with Pure Thoroughbred Homers Should Count on Eight or Nine Pairs of Squabs a Year—The Common Pigeon Breeds Only Four or Five Pairs of Squabs a Year, But Eats as Much or More Than the Homer—Differences Between the Homer and the Common Pigeon—Good Homers Scarce and the Market for Them Firm and Steady.

It is theoretically possible for a pair of pigeons to breed twelve pairs of squabs a year, for it takes only 17 days for the eggs to hatch, and the hen goes to laying again when the hatch is only two weeks old. So, if you start with 12 pairs of Homer pigeons, and they should breed one pair of squabs a month, at the end of the first month you would have 24 squabs; at the end of the second month, 48 squabs; at the end of the third month, 72 squabs; at the end of the fourth month, 96 squabs; at the end of the fifth month, 120 squabs. Now the first lot of squabs which your birds hatched will be ready to mate and lay eggs, so at the end of the sixth month you should have 168 squabs; at the end of the seventh month, 240 squabs; at the end of the eighth month, 336 squabs; at the end of the ninth month, 456 squabs; at the end of the tenth month, 600 squabs; at the end of the eleventh month, 768 squabs, and at the end of the twelfth month, 960 squabs. Such figures are purely theoretical and are seldom attained in actual practice. It may be called the standard, the ideal, to which we are all working. You will have some pairs in your flock which will raise ten and eleven pairs of squabs a year, but the average will be eight or nine pairs of squabs a year. If you get only six or seven pairs, your flock is not pure thoroughbred Homers, or your feeding and nesting arrangements are wrong. In our visit to the New Jersey squab country, in the summer of 1902, we asked every squab breeder with whom we talked how many pairs a year he was getting from his birds, and about all of them said seven to nine. This experience corresponds with ours. We remember particularly an old gentleman, Preacher Hubbell, in Vineland, who had been in the squab business for years but was just going out of it, having sold his place, pigeons and all, to a Swede farmer. He told us he had always made squabs pay him and that his birds, of which he kept a careful record, raised him nine pairs to the year right along.

It is a well-known fact that the common pigeon will breed only four

or five pairs of squabs a year, and if handlers of big flocks of common pigeons like Johnson of California can make a net profit of $1 per pair a year from such low breeders, we think anybody of no experience is justified in believing our statement that our Homers are capable of earning a net profit of from $2 to $3 per pair a year, taking into account not only their fast breeding qualities, but the superior size of the squabs. Here in New England we consider the common pigeons inconstant and happy-go-lucky breeders. In the vernacular of the squab breeder they are called an epithet which is applied to a female of no morals. They are not in the same class at all with the Homer pigeon.

The common pigeon, the pigeon which flies the streets of our cities and towns, is a mixture of all kinds of pigeons, and it partakes of the faults of each, and not of the virtues. Its outward appearance is large, but it is an effect of feathers and not of flesh. Its feathers are loose and fluffy and its muscles soft and flabby. Its head is smaller than that of a Homer, the deficiency being marked in the curve of the skull which covers the brain. The Homer has the largest brain of any variety of pigeon, and discloses this fact by its behavior. It has more sense and behaves with more intelligence. Its wonderful homing instinct marks it above and beyond all classes of pigeons and it is this quality which gives it a commercial value all over the world. The feathers of the Homer are laid close like a woman's glove and the muscles under it feel as hard and firm as a piece of wood. Its breast is firm and well protected, with just the right amount of fullness. Its chest is large, indicating good lung power and staying qualities. Its wings are trim and shapely, in flight the poetry of motion. The poise of its body and head reminds one of a racehorse listening for the signal to speed over the course. The lines from the neck to the body descend in a long, graceful sweep. Put a thoroughbred Homer into a flock of common pigeons and even a novice, if told to pick out the bird which would fly the fastest and furthest, would pick out the Homer. The Homer has a long bill (but not so long as the Dragoon pigeon). The bill of the common pigeon is short. Its bill is more hooked and is sharper pointed. Its head is shorter and more rounding on top.

The common pigeon is seldom bred in captivity, because it does not pay for the grain which it consumes. If bred in a wild state, it picks up a living in the neighborhood, the owner not keeping it wired in. It is the cheapest kind of a pigeon, and thousands of pairs are used by trap shooters. Undertakers sometimes buy the white common pigeons in order to liberate them at graves, to signify the ascent of the soul to heaven. Common pigeons will live anywhere, do not get attached to any home, but a Homer never forgets the place where it was bred and will search out its home in long flights. Common pigeons will alight on any building and will drink from different springs and wells, fouling them and making themselves a nuisance in a neighborhood. The Homer will alight only on its own squab house and drink only at its own home. Common pigeons

sell for fifty cents a pair and are frequently offered as Homers. Do not start with common pigeons and think to learn the habits of squab breeders with them. If you cross a common with a Homer pigeon you will take away the good qualities of the Homer and add nothing. There is not one element in a common pigeon which if added to a Homer would improve the offspring. It is hard to convince some people that there is any difference in pigeons whose feathers are the same color. The result is they buy the cheapest they can get. After feeding them for a time and getting no profitable results, they are compelled to sell them to the first trap shooter who comes along, and they go among their townspeople declaring that the pigeon business is no good. Remember this point, that if you are going to buy grain and feed it to anything so as to get a profit, it is the best policy to feed it to that grade of animal which will show the largest profit. Very few people are satisfied with shoddy suits nowadays, even if they look almost as well as the all-wool garments. It is the wear which the customer is after. Beware of shoddy pigeons. Buy the best Homers you can get, they will wear best and give you the most pride. Experienced poultrymen do not go here and there looking for fowls at cut prices. They buy breeding stock of a reliable breeder which is reliable and sold at a price which will enable the seller to deliver a high quality article. We can tell pretty well when an order for our breeding stock comes from an old poultry man, for they all write: "I want the best stock you can give me."

Good Homers do not glut the markets. They are always fairly scarce, and the price for them has always been well kept up. Beware of cheap Homers for sale at cut prices. There is always something the matter with such birds. They have been worked too long and are played out, or if a flock is offered "at a bargain," the birds do not produce the large, plump, No. 1 squab, but only culls. If a squab breeder is going to quit the business and offers you his flock of birds on the bargain counter, make him give a good reason to you for selling. If he has been unable to make the flock pay, you may be sure that you will be unable to make them pay. If he offers them to you without a good reason for selling, the chances are that it is a poor flock and he has got tired of buying grain for them, and wishes to saddle the burden on you. We are always selling breeders and it is very much to our interest to protect our reputation by sending out only good Homers that will make money for their owners, and this is what we do, and our large business has been built up by square dealing, and knowing the business thoroughly.

A pair of Homers capable of earning a pair of squabs in one month which will sell for at least 50 cents is worth more than $1 or $1.25 a pair. A pair of birds capable of earning only a ten-cent or twenty-cent pair of squabs once in two or three months is worth only 50 cents a pair. Jersey cows are worth more than common cows because they earn more. Good Homer pigeons, bred skilfully, are worth more than poor Homers because they earn more.

SCENES ON THE $200,000 FARM OF ONE OF OUR CUSTOMERS.

We make a specialty of fitting up country estates with squab plants. There is more beauty and pleasure in pigeons than anything on the farm, especially for women and children.

CHAPTER VIII.

KILLING AND COOLING.

Kill the Squabs in the Morning When Their Crops Are Empty—Not Necessary to Use a Knife, Their Necks May Be Tweaked—Drive the Animal Heat Out of Their Bodies by Hanging Them from Nails—The Ideal Squab When Shipped Has an Empty Crop, Its Feet Have Been Washed Clean, and No Blood Shows—Sorting Squabs So as to Get the Highest Price from the Dealer.

The time to kill the squabs is in the morning, when the crops are empty. In killing them it is not necessary to use a knife. Hold each squab in the manner shown in the illustration and break the neck with a sudden pull and push. Do not pull too hard or you will sever the neck from the body. Some of our customers have hard work to get this knack of tweaking the necks and prefer to wring the necks, or to use a knife. To wring the neck, hold the squab by the head in the right hand and throw the body around in a complete circle, this act twisting and breaking the neck.

After the squabs are killed they must be cooled. In other words the animal heat must be driven out of their bodies. Provide a piece of board or studding eight or ten feet long and every four inches along this studding drive a couple of nine-penny wire finish nails close together, but not so close that you cannot squeeze in the legs of the squabs. A finish wire nail has no large head like an ordinary wire nail. Suspend the studding from the ceiling by means of wire adjusted at both ends of the studding. This method of hanging it up is to prevent rats and cats from climbing up onto the studding and walking along it and eating the squabs. Place the feet of the squabs between the wire nails and let them hang downwards over night. In the morning the heat will be all out of their bodies and you can pack and ship them. If you are delivering plucked squabs to market, you do not need such an arrangement, but will throw the bodies into a tub of ice water (or cold spring water) after you have plucked them.

Ignorance of how to cool the killed squabs properly has discouraged many a squab raiser. If you throw the squabs in a pile on the floor after you have tweaked their necks, you will have a fermenting mass and the following morning, when you are ready to ship, many of the bodies will be dark-colored at the place of contact with the floor, or with other squabs, and decay will start from such discolored places. Hang the bodies from the studding, as we have described, and you will cool

Incorrect Position of Hands.

Correct Position of Hands.

A squab is killed for market when it is plump and well feathered, usually when four weeks old, although many are ready for market when a day or two over three weeks old. Hold the hands close together on the neck, as shown in the bottom picture and break the spine of the bird by pulling firmly and then pushing back. Do not put so much strength into the operation that you pull the head from the body. This method of killing is faster and neater than using a knife.

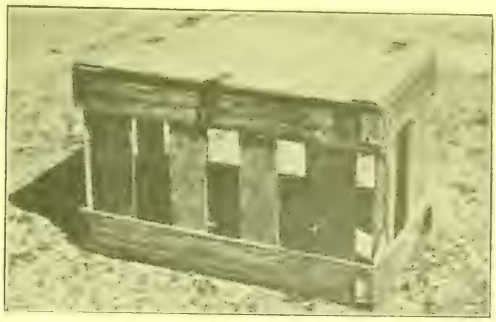
them just right and you will be surprised that this part of the business ever could have discouraged anybody.

If you number the nails which you have driven into the studding, you will know just how many squabs you hang up, and you will not have to handle the squabs a second time to count them.

The ideal squab which brings the highest price in the market is not only large and plump, but has a clean crop, so that no food will be left in it to sour. No blood shows anywhere on the body and its feet are clean. Ship in small quantities, especially in the summer. Do not pack in an enormous box, or the bottom layers will suffer.

A squab should be killed, as we have stated, when from three to four weeks old, most generally at four weeks. Do not wait until it is five or six weeks old, when it may have left the nest. As soon as a squab is old enough to get out of the nest and walk around on the floor of the squab house, it quickly trains off its fat and grows lean and slender. Its flesh also loses its pure white color and takes on a darker shade. You do not want either of these two conditions.

If you tie up your killed squabs by the feet when shipping to market, do not tie a lean with a fat squab, for if you do the dealer probably will give you the price of the lean one. Put the fat squabs in one bunch and the lean squabs in another bunch. If you are shipping to two dealers, you can very often get the top price from both by giving one your best squabs and the other your second best.



Fill this berry crate with nesting material (straw cut into six inch lengths, and hay, mixed about equally) and place it in centre of squab house. The cover prevents the birds from fouling the nesting material. They stick their bills through the slats, select the wisps they want, and fly to nests.

KILLED SQUABS HUNG TO COOL.

After the squabs have been killed they should be hung as this picture shows to cool. The wooden scantling or studding is several feet long and is suspended from the ceiling at its ends by wire, so that cats and rats cannot climb to the squabs. A pair of nails are driven in four inches apart and the squabs' legs set in between them.

CHAPTER IX.

THE MARKETS.

Squabs with the Feathers on Taken by the Boston and Some Other City Markets—The New York Market Wants Them Plucked and Pays the Highest Price of Any Northern City—Interpretation of Quotations of Squabs as Seen in the Newspapers—White-Fleshed Squabs Are Wanted, Not Dark-Fleshed.

The Boston market, and the market in some other cities, will take squabs with feathers on. It is only necessary for you to tweak the necks of the squabs and send them to the train, after they have cooled over night. Some shippers do not take the trouble to box the killed squabs, but tie their legs together with string and send them along to market. In the baggage cars of the trains running into Boston you will sometimes see strings of squabs going in to the commission houses in this way.

The New York market wants the squabs plucked. The squab breeders who have large plants and who ship to the New York market employ pluckers and pay them by the piece. A skillful plucker will strip feathers from squabs at the rate of ten to twenty squabs an hour. The proper time to pluck the killed squab is immediately after killing. When picked clean, throw the squab into cold water and leave it there over night to plump out and harden the flesh. In the summer use ice water.

The squab puts on more feathers than flesh during the last few days of its growth and if you see squabs which are only three weeks old, but which are of good size, you may save a week on feed by killing the squab at that age and plucking it. When the feathers are off of it, it looks like the four weeks' squabs which have not matured so rapidly.

If you are shipping to the New York market, you should pack your squabs in a neat white wood box, printed if you please. Do not use a pine box for if you do the odor of the pine will penetrate the squabs.

The New York market for squabs is the best in the north. Squabs delivered by our customers there invariably bring from $1 to $1.50 per dozen more than in the Boston market. This is because there are more rich people in New York than there are in Boston, and they are more free with their money in providing luxuries for their table than Boston folks. We do not mean to disparage the Boston market for squabs, which is always good, averaging $3 a dozen, but we wish to emphasize the fact that the New York market is a phenomenal one. Anybody living near New York can make a fortune raising squabs. Our largest orders have come from customers who are shipping to New York.

Not all the New York newspapers print market quotations of squabs. The New York Evening Sun is an exception. All through the winter of 1901 and 1902 squabs were quoted in the Evening Sun at $5 a dozen. This means that a squab breeder shipping to New York should have got $6 and $7 for a choice product from private customers.

A correspondent in New York state sends a clipping from the New York Tribune's market columns and asks for an interpretation. We quote from it as follows:

"Pigeons, 20c.; squabs, prime, large, white, per doz., $3.50 and $3.75; ditto, mixed, $2.75 and $3; ditto, dark, $1.75 and $2."

The quotation, "Pigeons, 20 cents," means 20 cents a pair for common old killed pigeons. These tough old birds are occasionally found in the markets and are worth only 10 or 15 cents apiece. They are neither squabs nor the old Homer pigeons, but are common pigeons such as fly in the streets. A small boy might get a pair of these street pigeons and kill them and give them to a butcher who would pay him 15 or 20 cents a pair. These cheap pigeons come into the eastern markets largely from the West in barrels and are sold to Boston commission men for five cents apiece, or 50 cents a dozen. They are retailed at from $1 to $1.20 a dozen. They are in the Chicago market masquerading as squabs. They have been killed with guns and have shot in their bodies. If you ask for pigeon pie at one of the cheap Boston restaurants, you will get a shot or two against your teeth with mouthfuls. After every trap-shooting contest some skulker goes over the field and gathers up all the killed and maimed birds he can find, and sells them for two and three cents apiece, or for anything he can get, and these find their way into the markets. The cruel practice of pigeon shooting by miscalled "sportsmen" on Long Island is quite common, and the presence of these birds in the New York butcher shops accounts for the above quotation in the Tribune. It is unnecessary to add that such birds do not compete with squabs. They can be made palatable only by stewing for hours in a pie, which takes out a little of their toughness. There is now a law in New York forbidding pigeon shooting.

As to squabs, the quotation, "Prime, large, white, per dozen $3.50 and $3.75," is for the kind of squabs that are raised from our Homers, namely, No. 1 grade.

By the quotation, "Mixed, $2.75 and $3.00," is meant that these amounts are paid for lots of birds composed of No. 1 and No. 2 grades, mixed. If you sort up your birds carefully you will be able to get the No. 1 prices for all. Some people do not know how to sort them, and they have to be satisfied with the price of a mixed lot.

By the quotation, "Dark, $1.75 and $2.00," is meant the dark-fleshed squabs, as you have learned by reading our Manual. Squabs whose flesh is dark do not sell for as much as the white-fleshed squabs.

Pigeons are of all colors, i. e., as you see their feathers, and the squabs

likewise, but when you pluck the feathers off the flesh is either a pure white with a tinge of yellow or dark like a negro's skin.

Quotations for squabs as found in the market reports in the newspapers are always lower than they really are. The writers of the market columns in the daily papers see only the commission men and cater only to them; they smoke the commission men's cigars and believe what the commission men tell them. They do not see the producer at all. The object of the commission men is to get the squabs as cheap as they can. When you are breeding squabs make up your mind to get from 25 cents to $1 or more per dozen than you see quoted in the market reports. At the same time the report quoted above was printed in the New York Tribune a breeder in Mauricetown, N. J., was getting from $4.25 to $4.50 a dozen for his squabs. (This was the last week in January, 1902.) You see, it does not pay to trust wholly to the market reports in the newspapers. The motive of the city men is to get their goods as cheap as they can. It is your motive to get as much as you can, and don't be fooled by second-hand information. Go direct to headquarters yourself in person and learn the truth. If the middleman tries to hold down the price to you, go to a consumer and make your bargain with him at top prices.

A breeder in New Jersey writes that there are several squab breeders in his town, all of whom give their regular time to other businesses. He continues: "I am now (February, 1902), getting 32 cents each as they run, no sorting, for what few squabs I am now raising, and they are sold to a man who calls every Tuesday for them. When I have enough, I ship direct to New York by express. They sort them in New York."

This is doing extremely well for unsorted squabs. It is only another bit of evidence which proves the money-making condition of the New York market. (The above correspondent's breeders are not first-class, he admits, saying he has been breeding for seven years and his flock has run down.)

The Kansas City market does not yet know what a fat squab is. The only things obtainable there are the squabs of common pigeons, which are quoted low, as they are all over the country. A correspondent in Atchison writes: "I wrote to the Kansas City dealer again, telling him I thought his prices were pretty low for Homer squabs. He replied that they had so few Homers offered that they did not quote them, and they would be worth from $2 to $2.50 per dozen. He quoted common pigeon squabs at $1.25 to $1.75 per dozen, as I wrote you before. That is better, and I want to try raising them as soon as I can get into a place where I can handle them."

Fact is, the squabs that bring from $3 to $5 a dozen east of the Mississippi will bring that (and more) as soon as the wealthy trade of Kansas City get a taste of them.

Find out for yourself whether your market wants squabs with the feathers on or off. We do not know such details about the squab market in every city in the country and cannot advise you accurately on this point if you write to us from a distant town or city.

CHAPTER X.

PIGEONS' AILMENTS.

Canker a Filth Disease Which Makes Its Appearance in Nasty, Cramped and Crowded Quarters—It is a Captivity Disease and a Sure Cure for It is to Turn the Bird Loose to Get a Change of Food and Plenty of Exercise—A Flock Supplied with Pure Food and Clean Water Never Will Be Sick—Canker is Not Epidemic—It Does Not Pay to Dose a Sick Pigeon, Better Turn It Out to Get Well.

The principal ailment met with by the squab breeder is canker. This ailment is a puzzle to some breeders and they are alarmed when it makes an appearance in their flock, as it does if the feed is poor or sour, the water dirty, or the squab house filthy. The advice which they give when they find a cankered bird is "Kill it." That is the advice we used to give at first, but now we know better. First, what is canker? It is a disease of which you know the cause (filth, poor feed or dirty water) and whose symptoms you see in the form of a cheesy-like deposit in the mouth of the pigeon, and breaking out around the bill. Catch the pigeon, hold it in your lap and force open its bill and you will see a yellowish patch or patches in the mouth, and the mouth will usually be filled with a yellowish deposit which smells bad. The disease is not serious. The trouble lies with the feed and the filth and that is what spreads the same symptoms from one pigeon to another. A case of canker in your flock should be a warning to you that the feed is wrong or water is wrong, or that you have a filthy house. Do not get alarmed and kill the bird. Catch the affected pigeon and carry it out of your flying pen and squab house and throw it into the air. The bird may fly away and lose itself, and if it does you are out one pigeon just as if you had killed it. The chances are, however, as in the case of any sick animal, that it will linger around home. Now you will be surprised to see how quick that pigeon's health will improve. Not having a steady supply of food before it, it will have to hustle for a living, and this exercise and the change of living, and the scanty living, will effect the cure. It will get more fresh air, and a great deal more exercise, and more sun, than it would get if left in company with the other birds. In about a week you will notice that it will hold its bill tighter, and if there is a sore on the outside of the bill you will see this sore dry up. In two weeks the chances are that the yellowish deposit on the interior of the mouth will be entirely gone. The pigeon will hover around the other pigeons. It will fly to the outside of the netting and look at its fellows. Place a dish on the ground

now and then with a little feed and you will attract it. Catch it when you have a favorable opportunity either with a net on the end of a pole, or with a broom, pinning it into a corner. You may have to try several times, but you will get it after a while. Its eye will be brighter and signs of disease will be gone, and you can put it back into the squab house with the others. The exercise, sunlight, change of food, and scanty food, have made the cure. There are few pigeons so bad with canker that they cannot be cured in this way. For that reason we have not much hesitation in saying that canker is a captivity disease, caused by lack of exercise as well as unavoidable filth and too much of the wrong kind of feed. We have observed wild pigeons in the streets and we never saw a case of canker among them. You may say to yourself that it is quite a risk to throw out into the open air a pigeon which has cost you from 75 cents to a dollar, but it is better to do this than to take the advice of all other breeders and books and kill it.

Powdered alum sprinkled in the drinking water now and then will tend to ward off canker from a flock.

It does not pay to dose sick pigeons, because a cure seldom is obtained by dosing, and you are out your time. The only remedies you need are powdered alum and common brown ginger. The brown ginger is for the purpose of counteracting any tendency to diarrhoea which you may observe. Sprinkle it in the drinking water.

The squab breeder who follows the advice as to feed and water, and cleanliness of squab house, given in this Manual, will not have any sick pigeons. It is so very easy to keep a pigeon in perfect health that the fear of disease is a bugbear not worth taking into account. The element of disease is a constant source of worry to the chicken breeder, and a source of heavy loss to the best of them. We wish to assure all who contemplate starting in the squab breeding business that the pigeon naturally is a healthier and more rugged bird than the domestic hen and that positively you will not be fussing with remedies and curealls, in handling them.

"Going light," or wasting away, is an ailment of pigeons occasionally met with. The cause of it is an absence of grit and salt. If your staples of feed are provided as we tell, and you give a variety of feed, and you provide grit and oyster shells, you will have no cases of "going light." The disease is known by a steady wasting away of the pigeon. Catch it and you feel a prominent breast bone, and scanty flesh, showing that some element in the feed is lacking.

The principal cause of these ailments of pigeons, next to filth, is too much corn. Corn is carbonaceous and produces fat, which heats the blood and lays the system open to disease.

CHAPTER XI.

GETTING AHEAD.

Make Your Birds Pay for Themselves as They Go Along, Unless You Wish to Wait Patiently Until a Small Flock Increases to a Large One—Better to Take the Money Made from Sale of Squabs and Buy More Adult Birds than to Raise the Squabs, Because It Is a Long Jump from Four Weeks (the Killing Age) to Six Months, at Which Age the Birds Begin Breeding—Shipping Points.

It is the birds and not the buildings which count in squab raising and if you have $50 to start, put $35 or $40 into your birds and the balance into your building. We have had customers start with a $100 building and put a $10 lot of birds into it, continuing to buy $10 lots of us about once a month until they had their flock to a good size, but we believe it is best to let the buildings follow the birds, and not the birds the buildings. In other words, let your birds earn buildings as they go along. It is quite a drag on a small flock to weigh it down with an expensive building much too large for it.

It takes patience to look ahead to the good time coming when you are going to draw dividends. The time to make a squab plant pay is at the beginning, or near it. When you can get fifty to seventy-five cents for a pair of squabs four weeks old, kill them and take your money.

Put this down in your mind solid, where you will not forget it: Make your pigeons pay for themselves as they go.

We sell to a great many poultrymen, and we like to get their orders, for they have been through the mill of raising feathered animals and are practical, and they are quick to see the money in squabs, and when their order for breeding stock comes along, it is in nine cases out of ten a large order, even if they have had no previous experience. They know that in order to sell squabs they have got to have birds enough to breed squabs and it is just as easy for them to spend $50 or $100 at the start as it is for them to spend $10 or $15 and use up $100 worth of time while waiting a year to begin selling squabs.

Many beginners are so skeptical that they do not believe squabs grow to market size in one month, or they have no confidence in their ability to feed the mature birds so as to keep them alive. They wish to make a start with a few pairs and actually convince themselves. We do not believe in untried hands plunging into something of which they know nothing, and we commend the caution of the beginner with squabs who wishes to feel his way and "make haste slowly" as the saying is, never-

theless we know it to be a fact that our customers who started with large flocks are making splendid successes, and we are not so cautious as we were in former books in advising a small purchase, at the start. The rules for breeding we have given have stood the test of time; we have not had it said to us that they are misleading or erroneous, on the contrary, our customers write and tell us that their experience corresponds with ours, that the books are all right, and our business has increased right along. When a customer orders $200 worth of breeding stock of us and two months later $200 worth more (we sell to some customers month after month steadily, as their means or their inclination permit them to buy) we are given a large measure of confidence, first, that people (many of whom we never see and who are not experts) can start with our writings and our breeding stock and make a success, and second, that all we have advised about the industry is of general and convincing application, and third, that it does not take extraordinary skill to make a success with squabs.

We fill all orders, large or small, with equal care and thoroughness, for it is just as much to our interest to please the customer and get more orders in the one case as in the other.

There is not much choice as to what time of year a start in squab breeding should be made. Our customers who start in the winter have been exceptionally successful because then prices for squabs are at the top notch, and it takes only a few sales to make a new breeder thoroughly convinced to go ahead to success. We ship breeders all the year round. A pigeon will not break down under either stifling heat or bitter cold, being a remarkable contrast to all other animals in this respect.

We fill orders in rotation and treat customers alike, and ship promptly. Frequently we get orders to ship by first returning express, and it is very difficult to do this. One customer in Chicago planned to start for Alaska with 12 pairs of our birds, but he held back his letter so that we got it only with two hours to fill crates and get birds to him before his departure. We filled his order as a matter of accommodation.

In ordering supplies to be sent by freight, remember that it takes a freight shipment some time to get to destination, especially when traffic is congested in the spring or in the harvest season. Give us your order for nappies, etc., before your house is ready.

The live breeders are shipped by us either in specially made pine crates or wicker coops. Large shipments for remote points go best in the wicker coops, which remain our property and are returned to us at our expense by the express companies after the customer has released the pigeons. These baskets are expensive and are fitted with large block tin feed and water dishes. It is impossible to break them open with the roughest handling. The birds have plenty of room in them and arrive at their destination in fine condition.

The usual fault of inexperienced shippers is that the box or crate is too

A Pretty Squab House and Flying Pen.

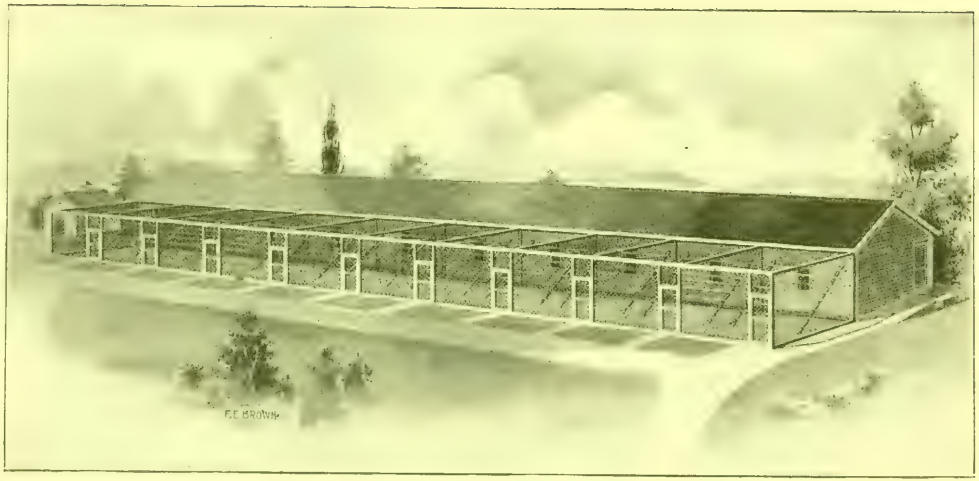
high, and too large, giving an opportunity for one bird to pass another by flying over its head. If there is too much room between the top and bottom of the crates feathers will be rumpled and pulled out, and the birds by crowding, will suffocate one or two. A large, heavy crate also adds enormously to the express charges. It is not pleasant to buy pigeons and receive them in a cumbrous box weighing from 25 to 75 pounds, on which the express charges are more than double what they would be were the birds crated properly.

If the birds are going to a point only a day or a day and a night distant, they need no feed nor water. If the destination is more remote, two tin cups, one for grain, the other for water, should be tacked to the inside of the crate. For a very long journey, a bag of grain should be tied to the crate. It is the duty of the express messengers to feed and water the birds en route, and they are so instructed by their companies.

Do you know that live stock is transported long distances by the express companies at the rate charged for ordinary merchandise? For carrying live stock short distances, the animal rate (which is double the merchandise rate) is charged. This is a peculiar rule, and it works so that the buyer at a remote point gets his shipment cheaper than the buyer nearer us. For instance, we can ship a crate of pigeons to Chicago from Boston cheaper than we can to Buffalo. All the express companies doing business in the United States and Canada have the same rule, which is, that between points where the single or merchandise rate is $2 or more per 100 pounds, live animals, boxed, crated or caged, are charged for transportation at the single or merchandise rate. Between points where the single or merchandise rate is less than $2 per 100 pounds, live animals are charged the animal rate (which is double the merchandise rate). In order to obtain the lowest rate of transportation, the value of each pigeon must be stated by the shipper at $5 or less.

We have seen breeders who have been shipping live stock for years and they never heard of the above rule of the express companies, and also we have seen scores of express agents who did not know of their own rule, but always charged the animal rate on animal shipments. But the rule is found in every graduated charge book of every express company, and the experienced express men and experienced shippers know all about it. If the agent in your town is ignorant of the rule, ask him for his graduated charge book and you will find it under the classification "Animals." Every customer of ours entitled to the single or merchandise rate on his shipment gets a card from us in our letter to him with the rule printed on it. Many express agents at local points seldom handle a live animal shipment and do not know how to charge for it.

A live animal contract release, to be signed both by shipper and express agent, is needed in all cases where the value of the shipment is over $5. If pigeons which we ship are killed in a smash-up, we can recover from the company. We have no hesitation, therefore, in guaranteeing the safe



MULTIPLE UNIT HOUSE. TEN UNITS, BUILT ACCORDING TO OUR PLANS.
The construction is thorough but simple, handsome as well as practical.

delivery of our pigeons to customers. Our responsibility does not end when we have given them to the expressman. Our guarantee follows them as long as they are in the hands of the express company. We will put them into your hands safe and sound.

Once in a while you will read of live stock and breeding associations getting together and complaining about the "exorbitant rates" charged by the express companies. The trouble is not with the rates of the express companies, but lies wholly in the ignorance of the breeders who meet to complain. They simply do not know how to ship and how to talk to the express agents.

We never read the above advice as to shipping live stock in any book or paper. It is the product of our own experience and the information cost us at least $100 in excess charges before we learned how to get the low rate. It is worth dollars to our customers, and that is why we have given it here in detail.

Killed squabs go to market at the rate charged for ordinary merchandise, no matter what the distance. Breeders having special customers who wish the squabs plucked should pack them in a clean white wood box (with ice in the summer) and nail the box up tight. Such shipments go through in splendid condition and if the breeder has a choice article, with his trade mark stamped on the box, he gets the fancy price. Squabs which reach the Boston market from jobbers in Philadelphia and New York are plucked and packed with ice in barrels. Breeders around Boston who reach the Boston market with undressed squabs send them in wicker hampers or baskets on the morning of the day after they are killed.

In the graduated charge books of all the inter-state express companies dating from June, 1902, will be found a special classification indexed under P as "Pigeons." Tell your agent to look it up in his book if you think he overcharges you. There it will be found that live pigeons for breeding are carried for the single, or merchandise rate for all distances for which the rate per one hundred pounds is $2 or more. For all distances for which the rate per one hundred pounds is less than $2, the charge is now 1 1/2 times the merchandise rate, and not double it. This ruling practically puts pigeons on the same easy scale of charges as applied to common merchandise. No agent anywhere has a right to make any extra charges whatever on a pigeon shipment.

There is no duty on our pigeons to Canada, Cuba or Porto Rico.

CHAPTER XII.

QUESTIONS AND ANSWERS.

Women and Squab Breeding—Attentions of the Male to the Female Pigeon—Equal Number of Males and Females—Birds Flying Wild—Sale of Birds for Flyers—Variation in Size of Nest Boxes—How Squabs Are Artificially Fattened—Shipping to England—Training Flyers—A Remarkable Service for Messages Between Islands.

Question. I am a woman who knows absolutely nothing of squab raising. Do you think I can make a success of it? Answer. Our books are written and printed for the purpose of telling an absolutely ignorant person just how to proceed. If you will study this Manual, until you get the general plan and method of procedure in your mind, there is no reason why you cannot make a success of it. A woman is quick enough to puzzle out a new pattern of embroidery or a blind cooking recipe the terms of which are expressed in language utterly incomprehensible to a man. We find that our women customers are just as quick to comprehend pigeons as soon as they get started. It is necessary to have confidence, first that the birds can make money, and second, that you are able to handle them right. Women succeed with hens quite as well as men. They "take" to animals fully as well as men. The fact that you, our customer, are a woman, ought to encourage rather than depress you, in the squab business.

Question. I have an old poultry house 15 by 20 feet in size, ten feet high. How many pairs of pigeons can I accommodate? Answer. We have this question asked us many times, and our reply to all is the same. Sometimes the customer varies it by asking, How large a house do I need to accommodate 100 pairs of breeders? Sometimes they say they propose remodeling a barn loft which is 30 by 20 feet in size. The dimensions of the building vary with the customer. You can always accommodate as many pairs of breeders as you can make room for pairs of nest boxes. Fix up your building to suit yourself, and put in as many nest boxes as you wish. Then count your nest boxes and you will know how many birds you can accommodate. You must have two nest boxes for every pair of birds. If you have 100 nest boxes, you should order 50 pairs of birds. If you have 200 nest boxes, you should order 100 pairs of birds. For 24 pairs of birds you will need 48 nest boxes.

Question. How does the male bird impregnate the female bird? They do not seem to me to act as roosters and hens do. Answer. The human eye is not sharp and quick enough to follow the actions of the male bird.

He mounts the female in a manner which is called "treading." A female occasionally will "tread" the male bird, exactly as a female animal when in excessive heat sometimes will mount the male, or another female. Customers who had what they thought was a doubtful pair sometimes have written us saying that each would tread the other, and that of course both were males. After a while the same customer would write and say that the pair fooled him and that he had two eggs from them. The actions are in nine cases out of ten, of course, a positive guide, but there are exceptions to every rule.

Question. (1) The legs of the pigeons you sent me are red; are they inflamed? (2) The droppings are soft and mushy; I am afraid they have diarrhoea; what shall I do? (3) Most of my pigeons have a warty-like substance on their bills, varying in size with the pigeon; how shall I get rid of it? Answer. (1) The red color which you see is perfectly natural. The legs of all Homer pigeons are red. (2) The natural droppings of the pigeon are soft and somewhat loose. When they have diarrhoea the droppings are extremely watery and the tail feathers are soiled. Your pigeons are all right and have no diarrhoea. (3) The growth of which you speak is perfectly natural. It varies in size with the pigeon, sometimes covering the base of the bill, in other cases clinging closely to it.

Question. Can I figure with certainty that of each pair of squabs which my birds hatch, one is a male and the other a female? Answer. Not with absolute certainty, but as a rule. It is Nature's way to provide for an equal number of males and females, for that is the way the species mate and is reproduced.

Question. Enclosed find $10, for which please send me settings of pigeon eggs to that value, and send me the balance due, if any. Answer. We do not sell pigeon eggs. It is impossible to use an incubator and raise pigeons successfully, because there is no way of feeding the young squabs when they are hatched. The life of squabs is nourished and prolonged from day to day by the parent birds, which feed them. To raise squabs, you must start by buying the adult breeders. You cannot start with the eggs.

Question. It seems to me that if each pair of squabs hatched consists of male and female, that this couple is likely to pair when grown, being well acquainted with each other. This would be inbreeding and would weaken my flock. What shall I do? Answer. It is not the plan of the species to mate and inbreed like this. If brother and sister mated as you describe, the species would be extinct after a while. They will look for new mates as soon as they get out of the nest and are of breeding age.

Question. When are the young pigeons old enough to mate? Answer. From four to six months.

Question. My birds do not know enough to go in from the roof of the squab house when it rains. How shall I get them in? Answer. Let them stay on the roof in the rain if they wish. The rain will do them no harm.

Question. Must I heat the squab house in the winter time? Answer.

No. The heat from a flock of pigeons in a well-built house is considerable. You will get more squabs from your pigeons in the winter time if you do heat your house slightly, not enough to cause much expense, but just enough to take the chill off. Do not let your birds out of the squab house on bitter cold days.

Question. I live in Texas and I think in this climate your squab house would be too warm and stuffy. Answer. You are right. Adapt the construction to your locality. The poultry houses in Texas as compared to those in the North are much less expensive and more open to the air, and your squab house should be built on the same principle.

Question. Suppose I cool the squabs as you direct and pack them into a box for shipment. Shall I use ice? Is there any danger that the meat will be discolored when they arrive at market? Answer. Ice is not necessary in the fall, winter and spring. In the summer time you should use ice, although if the shipment is for a short distance, ice may not be necessary. In hot weather the squabs should not be killed until the night before shipping. In the cool months you may keep them at home longer. If the squabs are cooled by hanging them from studding as we describe, there is no danger that the meat will be discolored. The object of hanging them from studding is to cool the carcasses properly so that the meat will not be discolored by contact.

Question. How shall I pack the killed squabs when I send them to market? Answer. Lay them into the box layer on layer, in an orderly fashion. Do not throw them in helter skelter.

Question. Can I hang the squabs to cool from studding suspended in the barn, in the summer time. Answer. It is better to use the cellar of the house, or the coolest room in the house.

Question. I do not like your idea of keeping the birds wired in. They are free by nature and it strikes me that they should have a chance to get exercise by long flights. Answer. You must keep them wired in, or they may leave you. Remember that the Homer is attached to the place where it is bred, that is the Homer instinct. If you buy birds of us and on opening the crate let them fly anywhere they choose, trusting to luck to have them come back to you, you may be disappointed and lose some of the birds. You must keep them wired in all the time.

Question. You say your Homers are fine flyers. What is the use of my buying them of you to fly in races or to sell again as flyers, if they may desert me when I let them out into the open air? Answer. The squabs which you breed from our birds will know no home but yours, and they will not fly away from you. You can send them away, when they are old enough, and time their flight back to your house, their home. When you sell these trained flyers to others, you do not expect that they will try to fly them, but that they will use them for breeders.

Question. How large are the mating coops? Answer. A convenient size is two feet long, two feet wide and two feet high.

Question. My birds seem timid and I am afraid to catch them. How shall I go about it? Answer. Do not be afraid of hurting them. Take a broom and drive one where you will, finally pinning it against the side of the squab house, or in a corner. Grasp it and hold its wings firmly and it will not struggle. Or you may make a net on the end of a pole, like an ordinary fish landing net, and scoop the bird into it as it flies through the air.

Question. Suppose I have several squab houses, as you describe, but let all the birds together into one large flying pen, where they can bathe from one large fountain. Answer. This is all right if you do not wish to keep close track of your birds. If the birds can roam from one house to another, there is nothing to prevent a pair from building one nest on one house and then going to another house to build the second nest.

Question. I believe I will put a strip of wire or piece of wood across the front of each nest box so as to keep each pair more secluded, and to keep the nests from dropping out. Answer. Don't do it. You do not need, and the pigeons do not like a dark, secluded nest. Don't worry about the nests falling out. Build the pigeon holes perfectly plain.

Question. How many squabs shall I pack in one box when sending to market? Answer. Having picked out the size of the box you wish, fill it up close with squabs, so they will not "shuck." As to the size of the box, make it as big or little as you please, but do not make it any bigger than one expressman can handle easily. A good size is two feet square and one foot deep.

Question. Send me two males and ten females. Answer. You must buy your birds in pairs. They pair off in this way, namely, one male to one female. One male does not have two or three females. We have heard pigeon breeders talk of having one cock which would attend two hens, but never had a case in our experience.

Question. After plucking the squab, and before sending it to market, do you remove the entrails? Answer. No.

Question. In order to avoid the trouble of using the mating coop, may I put an equal number of cocks and hens in the same pen? Answer. Yes.

Question. Can I discover the male and female organs by examination of the birds with a magnifying glass? Answer. No. You can discover them by dissecting the dead bird.

Question. Suppose I build the nest boxes larger, so as to give a shelf on which the birds can alight? Answer. Don't do it. The bird will fly directly into the nest, or onto the nest box in front of the nest. You do not need an alighting place.

Question. Seems to me that if I start with 48 pairs of birds, I ought to have 96 perches. Answer. The birds do not all perch at the same time. While some are perching, others are on the nests, or walking on the floor, or are outside in the flying pen, or on the roof. Put up a few perches where you have room and let it go at that.

Question. Should I cover the yard of the flying pen with grit? Answer. No. Provide a box and keep the grit in the box. When the pigeons want grit, they will go to the box and get it.

Question. Are the carrier (flying) pigeons the same breed as your Homers? Answer. Yes. A flying or carrier Homer is a Homer that has been trained to fly a long distance.

Question. What is the difference between your Mated Birds and your Extra Mated birds? Answer. They are our same breed of Homer pigeon. The Extra Mated birds will breed squabs which are bigger and plumper and for which you can get more money. They are our choicest stock, the best which we can deliver.

Question. What are artificially fattened squabs? Answer. An artificially fattened squab is a squab which has been stuffed by hand. Take a syringe and fill it with fattening mixture of gruel-like consistency, open the mouth of the squab and force the contents of the syringe into the crop of the squab. Very few breeders take this trouble to bring their squabs to an extraordinary size.

Question. I wished you had shipped my breeders in one large crate, then the express charges would not have been so much as for the two crates which you used. Answer. You are mistaken. An express shipment goes by weight and not by number of packages. The express clerks put all the crates going to one customer on the scales together and weigh them all at once and on the total weight the charge is based. They prefer to handle a large shipment in small packages, rather than in one large package.

Question. I live in England; can you ship me twenty-four pairs of your breeders? Answer. Yes; the transportation charges will be $4. In addition you will have to pay the butcher or steward of the boat ten shillings for feeding and watering the birds. Send us $6.50 in addition to the regular price of the birds and we will ship to you all charges prepaid. In shipping to Cuba and remote points in the United States and Canada, we do not have to pay anything extra for the feeding and watering of the birds; the express charges include the feeding and watering.

Question. What is a Runt pigeon? Please quote prices on a dozen pairs of Runts. Answer. A Runt pigeon is a special breed of pigeon, remarkable for its large size. They come all colors, as a Homer does. The white Runts are an exceptionally beautiful bird and command large prices, as high as $6 to $15 a pair. The squabs which Runts breed weigh from 18 ounces to 1 1/2 pounds at four weeks. If Runts bred as fast as Homers, they would be just the bird for squab breeders, but they are fatally slow in breeding, as a rule. The Homers raise two pairs of squabs to the Runts' one. Therefore it is of course more profitable to raise Homers. We do not sell Runts and do not advocate their use either as a separate breed, or crossed up with Homers. The large, plump, thoroughbred Homer is the best.

Question. What is the difference between the Homer and Antwerp breeds of pigeons? Answer. No difference. The name is used interchangeably to apply to the same breed of pigeon. In New England we speak of them mostly as Homers. In New Jersey they are called more often Antwerps.

Question. Can I feed some of my squabs by hand if necessary? Answer. Yes. Mix up a mushy, soft handful of grain, hold the squab in the left hand, close to your body, and with the thumb and first finger of your right hand force the mixture into the bill. The squab will swallow and fill its crop. A backward squab may be forced in this manner.

Question. Can you sell me twelve pairs of young Homers, about eight weeks old? Answer. No. It is impossible to tell the sex of pigeons except by looks and habits when they are six to eight months old, so we cannot send out mated pairs of birds under that age. Any breeder who undertakes to furnish squabs several weeks old in mated pairs cannot do so and is imposing on you.

Question. Please give recipes for cooking squabs. Answer. See the cook books. Squabs are generally served broiled. They should be drawn, singed and washed. Cut off the heads, split into two parts, season, put on a lump of butter and broil over a hot fire. Place close to the fire at first so as to brown the outside and retain the juices, then hold further away from the fire to complete the cooking. If roasted, leave them in a hot oven for thirty minutes. For roasting, squabs may be stuffed with cranberries or currants. Baste every ten minutes with spoonfuls of hot water and butter.

Question. How shall I train the young birds raised from your Homers to fly? Answer. There is a large business in flying Homers and if you have a pen or two of trained birds you can sell them at fancy prices. There are homing clubs all over the country which have contests and it is worth while for a breeder to work for a reputation of breeding and selling fast flyers. The young Homers when five months old are strong enough to be trained to fly. Take them in a basket (having omitted to feed them) a mile or two away, and liberate them one by one. They will circle in the air, then choose the correct course. You should have left grain for them as a reward for their safe arrival home, and an inducement for their next experience in flying. Two or three days later take or send them away five miles and repeat. Next try ten miles, and so work on by easy stages up to 75 or 100 miles. If you have a friend in another city, you may send your birds in a basket to him with instructions to liberate certain ones at certain hours, or you may send the basket by train to any express agent, along with a letter telling him to liberate the birds at a certain hour and send the basket back to you. If you wish to have the birds carry a message, write it on a piece of cigarette paper (or any strong tissue), wrap the paper around the leg of the bird and tie with thread, or fasten with glue or a stamp; or, you may tie the tissue around one of the

tail feathers. A thin aluminum tube containing the message may be fastened to a leg, or to a tail feather. A trap window should be constructed to time the arrival home of birds. This is an aperture about six inches square closed by wires hanging from a piece of wood at the top of the aperture and swinging inward, but held close to the aperture by its own weight. The pigeon cannot fly out but on its return home (if you have sprinkled grain on the inside of the house, next the wires) the bird will push the wire door and go in. It takes only a day or two for the pigeon to become accustomed to the trap. It you connect the trap with a simple make and break electric circuit, the pigeon on its arrival home from its flight will ring a bell in any part of your house or barn. When you have a record of the flyers, you will have a guide for mating. The majority of fanciers recommend a medium-sized Homer. A large hen should be mated to a small cock, or a large cock to a small hen. Instead of mating birds of equal age, try an old cock with a young hen, and vice versa. For vitality and stamina, it is best to mate birds of different colors. A pair of breeding pigeons will occupy the same pair of nests year after year, and they never will change mates, but you may break up an undesirable mating if you choose and re-mate the birds according to your determination, using the mating coop as described. What is perhaps the best pigeon service in the world has been in use for several years between Newton Roads, Auckland, New Zealand, and the Great Barrier and Maro Tiro Islands, some 75 miles distant. A boy of 16 years worked up the service and makes a large income from it. About 20 messages an hour are carried back and forth by the Homers. A year ago the government declared its intention of laying a cable from Auckland to Great Barrier. The project was abandoned, however, as the residents of the little island decided that they were well pleased with the pigeons, and that a cable would not be patronized. The government offered to buy the whole pigeon outfit from the boy owner, but he refused. There are from 400 to 500 pairs of pigeons in the service.

Question. In the case of young birds mated up for the first time at five or six months of age, is it best to destroy the first eggs, or let them go ahead and hatch in the regular way? Answer. Let them go ahead and hatch and learn to feed their young. It will improve them for the next hatch.

Question. Please describe the self feeder more fully and explain its operation. Answer. The hopper of the feeder is V-shaped so that the grain will fall by its own weight to the centre at the bottom, which is cut away as shown in the illustration so that as the birds peck up the grain, more falls from the hopper. The slit where the birds eat should be about half an inch in width, just enough to prevent the grain from running out faster than it is eaten. The object of the lower steps of the feeder is to give the birds a chance to alight before jumping up onto the board where the grain is exposed.

Question. Can I use the upper part of my hen house for pigeons and

if so will the pigeons interfere in the flying pen with the hens? Answer. You may use the upper part of your hen house and the pigeons will not be harmed by the hens, nor the hens by the pigeons. It is best to build the flying pen in two stories so that the pigeons cannot fly into the hen house to try to nest.

Question. To save room, I would like to build my pigeon house in two stories. Answer. That is all right. Build the top flying pen out over and extending beyond the bottom flying pen if you wish to separate the flocks on the ground floor from the flocks upstairs.

Question. What are the bands for pigeons' legs and how are they applied? Answer. The seamless band is a ring of aluminum three-eighths of an inch in diameter and from three-sixteenths to one-quarter of an inch in width. You cannot apply it to an old pigeon. It is put on either leg of a squab when the squab is four or five days old, by squeezing the toes of the squab through the band. As the leg of the squab grows, it becomes impossible to remove the band except by cutting it off. On the band, before putting it on the leg of the squab, you may stamp year of birth and your initials, or anything you choose. We do not sell the bands, which are quite expensive, costing from three to four cents apiece as they are furnished by poultry and pigeon supply houses, and this cost makes them impracticable for the average squab breeder. We sell an outfit consisting of aluminum tubing, dies, etc., by which the squab breeder may make his own bands at a cost of two or three for a cent.

Question. Since I bought twelve pairs of you, I have kept a careful account of the feed and find as you state that five cents a month for a pair of breeders is right. Grain has been much higher than usual this summer (1902) and it strikes me that under normal conditions of the grain market the cost of a pair of squab breeders would be less than five cents a month, or sixty cents a year. Answer. Our figures of cost were ascertained not by "skimping" the birds, but feeding them liberally, and our estimate of five cents a month for a pair is based on a lower cost of grain than prevailed in the spring and summer of 1902. It is possible by close purchase of grain and careful feeding to get the cost under sixty cents per year per pair.

Question. What pattern of trowel do you recommend for cleaning the nappies and nest boxes? Answer. The common trowel such as bricklayers use is too pointed. The best pattern has a square point and a stout blade with strong handle. With such a trowel you can clean out the nappies and nest boxes very effectively.

Question. Can pigeons be raised on the sea coast as well as inland? Answer. Yes; the Homer pigeon is descended from a variety of pigeon which first bred among the cliffs bordering the sea shore.

Question. Do the squabs fly out of the nest before they are four weeks old? Answer. No; they look old enough to fly at four weeks, and their wings seem all ready for use, but they stay in the nest and are fed by

the parent birds, and when you wish to kill them you find both in the nest ready for you.

Question. Your book states that pigeons sometimes lay their eggs on the floor. But it does not say anything about taking the eggs and putting them in a nappy. Would the birds follow their eggs and accept change of nest from floor to nappy? Answer. No; you must leave the eggs where they lay them. You can handle a nest and change eggs from one nappy to another, if you wish, but you cannot move eggs from one place in the squab house to another and expect the birds to find them and go on with their laying.

Question. Do all squab breeders heat their houses in the winter time; I mean those who do a large business like yourself. Answer. No; some breeders of many years' experience believe that a warm house is detrimental to the health of the birds, on account of the sudden change of temperature from a warm house to a cold flying pen. The object should be merely to take the damp winter chill off the air. If you have a warm, tight squab house which you will close when night comes, you will need no heat.

Question. In the case of a long house, say four units long, should there be wire netting partitions between the units, so as to separate the birds into four flocks? Answer. Such an arrangement is more practical than one long house. It is better to keep track of four small flocks than one large flock. You can keep account of the birds both on paper, and with your eyes, with more precision.

Question. How would a cement floor for the squab house do? Answer. Do not have a cement floor. It will be too cold and damp. Rats will burrow under it and breed. The best flooring is made of two layers of inch board, with tarred paper between.

Question. How is salt cat made? Answer. Take 16 quarts of sand, eight quarts of slaked lime, four quarts of ground oyster shells, one pint of salt, one pint of caraway seeds and mix with water into a stiff mud. Form into bricks and set away to dry. The water with which you mix should have a tablespoonful of sulphate of iron and a tablespoonful of sulphuric acid for tonic and disinfectant. The birds peck at this mixture and it is believed to have a tonic and strengthening effect on them.

Question. Shall I crowd one of the units with nest boxes, or would it be better to have a smaller number of nest boxes and build another unit to accommodate the new birds which I am going to buy. Answer. Better enlarge your squab house. In case of doubt, you will be on the safer side if you do not crowd the birds.

APPENDIX A,

NATIONAL STANDARD SQUAB BOOK.

By Elmer C. Rice.

CALIFORNIA MARKET.—The California market for squabs is excellent, especially at the invalid resorts. In San Francisco it is not so good as at the Southern Coast places frequented by rich travelers. We print the following letter:

Poultrymen's Union of California, 413 Front street, San Francisco (Jan. 28, 1903): "Your valued favor just received and in reply would say that usually the quotations in the papers are close to being correct, but if you desire to call and see us at any time, we will give you exact quotations. There is always a good market here for large, fat squabs. They are readily selling today at $3 per dozen."

SUMMER RESORT MARKETS.—The pleasure and vacation resorts all over the country are good squab markets. Maine squab breeders ship to Boston in the winter but in the summer they get better prices at Bar Harbor and elsewhere along the coast. The White Mountain resorts in New Hampshire are a fine summer market, also the resorts along the eastern coast of Massachusetts. Newport, in Rhode Island, is a good summer squab market. Two or three of our customers in the vicinity of Lenox, Mass., and in North Carolina, and Florida, are quite enthusiastic over the splendid market at their doors. Wherever the good eaters go, winter or summer, there is the demand for squabs.

HOSPITAL TRADE.—A woman in the state of Washington wrote us that two big hospitals in a city near her had offered to take all the squabs she could supply. She moved out, bought a farm and in January, 1903, we shipped her four baskets. Under date of Feb. 7 she replied: "Please pardon my delay in acknowledging the receipt of the shipment of fifty pairs extra mated Homers I ordered from you. I have been so busy with them that I have not really had time to write. Out of the whole lot there was only one dead one, which surprised us." (As we had shipped two pairs more than the order called for, or 52 pairs altogether, the customer had no complaint.) "The birds are perfect beauties and we are greatly pleased with them. They seem to like their new home. Thanking you for your kindness and with best wishes."

The hospital trade in squabs is worth catering to, for they are such a delicacy that they are greatly esteemed by physicians. There may be a suggestion in this for you if you do not care to deal with commission men.

BRANCHING OUT.—We have put some of our best birds, in largest orders, for 300 to 1,000 pairs, right into the heart of the squab country around Philadelphia, showing that our ideas and our birds are all right. On Feb. 9, 1903, we received the following letter from Heacock & Hokanson, architects, of Philadelphia:

"Enclosed please find 25 cents for a plan of your style of squab house. Our client informs us that you have prints showing the details of house, nests, self-feeders, etc. We have two clients who have been making somewhat of a success at this work and are now ready to build houses with every essential and practical feature necessary to make a success on a somewhat larger scale."

SQUABS IN UTAH.—The following letter comes to us from James A. Hepburn, Utah, dated Jan. 24, 1903:

"Enclosed find check for $1.70 for which please send me postage paid your leg band outfit. I recently received your book on pigeons and although I have been breeding Homers for flying for a long time, I learned many things of interest to me from the book. I intend now to increase my flock and raise squabs for the market also. I find I can sell all I can supply here to the local markets."

SQUABS NOT GAME.—A correspondent writes us that she does not think she can market squabs in her state because the game laws are so strict. In reply we wish to state that squabs are not game, but are a domestic product same as chickens, and can be marketed in any state or territory at any time of the year in any quantity without violating the game laws.

CHICAGO MARKET.—The Chicago market for squabs is fairly good, but nowhere near so good as the markets of New York, Philadelphia and Boston, because the only squabs obtainable there in large quantities are the inferior squabs of common pigeons. We have customers in Illinois who have written us that their fat Homer squabs from our birds are salable at prices from $1 to $2 in excess of the prices quoted by the Chicago commission men. The Chicago market is an eager one, and the dealers are imploring squab raisers to sell, saying they will take all offered. We advise our customers in the

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Middle West to sell their squabs to the trade direct over the heads of the Chicago commission men until the latter advance prices. We print herewith some letters from Chicago commission houses, showing that they want them both with the feathers on and off, depending on the dealer:

C. B. Hayden, Jr., & Co., 214 and 216 South Water street, Chicago, Illinois (Jan. 26, 1903): "Your favor of the 24th inst. at hand and in reply will say, fat dressed squabs bring $2 to $2.25 per dozen. We handle them in any quantities."

Gallagher Bros., 191 South Water street, Chicago, Ill. (Jan. 26, 1903): "We have your favor of the 24th to hand and noted. In regard to handling squabs will say, we are in a position to handle any quantity to good advantage. We are now getting fancy squabs from Wisconsin, which are selling at $2.50 per dozen, about seven pounds to the dozen."

C. H. Weaver & Co., 129 South Water street, Chicago, Ill. (Jan. 29, 1903): "Your favor of the 27th received. The market on squabs is $2.25 per dozen for the weights you speak of. We can handle all that you will be able to ship us, but would advise making a small shipment at first, so that we will get an idea of your stock and dressing."

Theo. C. H. Wegeforth Co., 133 South Water street, Chicago, Ill. (Jan. 28, 1903): "In reply to your favor requesting us to quote you prices on squabs will say that there is a very good demand for them on this market at present and when fine they will bring from $2 to $2.25 per dozen but in order to bring these prices, the squabs must be fat and weigh on an everage about three-quarters of a pound each, and for such there is a ready sale. If you have any, or receiving, you can safely ship all you can get."

H. R. Waszko, 213 South Water street, Chicago, Ill. (Jan. 29th, 1903): "In reply to your letter of Jan. 27th, we wish to say that we can handle your squabs, in fact we can place any amount at the extreme top market price, for we are heavy receivers of dressed squabs, especially from South Dakota and Wisconsin. Squabs should weigh not less than six or seven pounds per dozen. Should be dry-picked as the trade that can pay fancy prices want them No. 1, and we quote them firm at $2.50 per dozen, but they must be fancy. We think we can get you still higher prices but we can tell from your first shipment to us just where we can place them and what we can do. See that they are well cooled off before shipping. Trusting that you will favor us with a good shipment as soon as possible and also give us an idea of how many you can ship us daily or weekly."

Peter Britten & Sons, 2 and 4 Fulton street, Chicago, Ill. (Jan. 30, 1903): "There is no limit to the amount of squabs we can handle, as we have inquiries for the same at all times. We assure you, and you can rely on us to obtain the highest possible price for your stock at all times."

Cougle Brothers, 178 South Water street, Chicago, Ill. (Jan. 29, 1903): "Replying to your favor of Jan. 27th will say that good fat squabs are worth from $2 to $2.50 per dozen. We can handle all of that kind you can get. The best way to ship them is just to pinch their necks, cool thoroughly and pack in a box. Do not bleed them nor take the feathers off. We hope you can ship us some of this kind of squabs as we need them."

F. W. Melges & Co., 100 South Water street, Chicago, Ill. (Jan. 28, 1903): "Replying to your favor of the 27th in regard to squabs we beg to say that there is a wide range of prices according to quality. If they are fine fat birds we can handle advantageously all you can ship us. We shall do all in our power to obtain the very top price for same at all times."

A. Booth & Co., 63-65 Lake street, Chicago, Ill. (Jan. 25, 1903): "If squabs are well dressed and weigh eight to nine pounds to the dozen, we can use them at $2.25 per dozen F. O. B. Chicago."

H. G. Lane, buyer for the Wellington Hotel, Wabash avenue and Jackson boulevard, Chicago, Ill. (Feb. 2, 1903): "In reply to yours of Jan. 26th about squabs would say that we are buying the large white squab you speak of. We have them shipped with the feathers on and market price for the best squab is $2.75 to $3.00 per dozen."

William H. Taylor Co., 156 and 158 South Water street, Chicago, Ill. (Feb. 4, 1903): "Your letter at hand in regard to squabs. Would say we could use all your squabs you can ship. We would just as soon have them with the feathers on as off. We can offer you $2.50 now for good stock. Should at any time market do better, we should certainly give it to you. Please let us know how soon you can ship and how many each week. We have the trade for them and can do as well as any one for you."

Herman Weber Co., Inc., Union Hotel and Restaurant, 111-117 Randolph street, Chicago, Ill. (Feb. 3, 1903): "Your favor of the 1st to hand. I am buying squabs fresh in the market all the time and am paying $3 per dozen for same. You can bring in two dozen of your squabs and if satisfactory will buy same of you right along."

The letter last quoted above, that from Herman Weber, is an indication of what the consumer in Chicago is paying for inferior squabs. It rests with you whether you will be satisfied with breeding a product which commands a price of $2 to $3 a dozen, or $3 to $6. If you put squabs weighing ten pounds a dozen and over into the Chicago market, you can get from $3 to $6 a dozen.

NEW YORK MARKET.—In the first part of

January, 1903, we received the following letter from the manager of the squab department of a commission house in Washington market, New York city:

"Your name and address as raisers of fancy squabs was given me by Mr. Howes of Detroit, Michigan, who was over to your place a few days ago. As I have heard of your plant before and have tried to get your address so as to write to you for squabs, I hope this letter will mean some business for us both. If you have any squabs to ship, I would like to get your output, and can use all you can ship at full market, and make you prompt returns day received and sold. This week I am returning the following prices: Squabs weighing ten pounds to dozen and up, $4.50 per dozen; eight pounds and up, $4; seven pounds and up, $3.50; six and one-half pounds and up, $2.60; dark, $1.80 per dozen. If you will prepay charges, account of sales will be sent you same day goods are received, less five per cent. commission."

Letters like the above come to us from all parts of the country, and squab breeders whom we have supplied get similar communications. The poultry and game dealers in all sections are after squabs all the time and could sell a great many more than they are now able to get hold of. The above letter is written notwithstanding the fact that in New Jersey and Eastern Pennsylvania alone are today four or five thousand squab breeders, many of them with large flocks of over one thousand pairs of birds each. In the town of Moorestown, New Jersey, to take only one case, are from 200 to 300 squab breeders. As we say in our Manual, people in these sections keep hens for their own use, but not for market, for they know that squabs pay better than hens. Poultrymen in other sections of the United States are fast finding this out and are putting in squabs along with poultry, or giving up poultry altogether. In spite of the large output of squabs from the 4,000 to 5,000 breeders in New Jersey and Eastern Pennsylvania, which go into the Philadelphia and New York and Boston markets (for the squab raisers in New England supply only about one-tenth of the Boston demand), there is all the time a scarcity of squabs, as the above letter proves. This letter comes to us because we have the reputation for dealing in a fancy product. There are breeders of squabs who send to market an inferior product from small and cheap Homers, and such squabs are not the kind which commission dealers are anxious to get. Be sure you are able to breed a fancy squab by getting your breeding stock of us. Some beginners are anxious as to express rates, not comprehending that they can ship squabs long distances at a trifling cost. The express rate from Boston to New York is $1 per 100 pounds. This means that an express team will call at our door, get a box of squabs weighing 100 pounds, transport it to New York, and in that city deliver it by team to the commission dealer for $1. In the case of a box of our squabs weighing twelve pounds to the dozen, about eight dozen and the box would weigh 100 pounds. If we delivered them in New York at the price quoted, $4.50 per dozen (or $36 gross), we would net, deducting his five per cent. commission and the $1 express charges, $33.20. The commission man would resell the squabs to his trade for $5 to $8 per dozen. By a dozen squabs we mean in this case and in all cases where prices are quoted, twelve squabs. We do not mean one dozen pairs of squabs. We mean six pairs of squabs. Squabs are always quoted at so much per dozen, not so much per dozen pairs.

On January 8, 1903, the New York squab buyer above quoted offered the following prices for squabs: For squabs weighing ten pounds to the dozen and up, $4.75; eight pounds and up, $4.50; seven pounds and up, $3.60; six and one-half pounds, $2.75; dark and No. 2 squabs, $2.

On January 25th, 1903, he offered the following prices: Ten pounds and up, $5.50 per dozen; eight pounds and up, $5.00 per dozen; seven pounds and up, $4; six and one-half pounds, $3; dark and No. 2 squabs, $2.10.

On February 6, 1903, he offered us the same prices as last quoted, adding that he would pay $3 to $3.75 per dozen for squabs of average weight and grade. In this letter he said: "As I have been getting quite a few letters from some of your squab customers of late, I want to thank you for same, and hope to get some of their birds and prove to their satisfaction by the prices large fine birds will sell at, that squab raising if properly carried on is a very profitable and paying industry. The demand for squabs in on the increase and will be from now on, as the game laws of all the states are such as to prevent much small game from reaching the several markets, where there has been a big supply of such at low prices that squabs will now take their place, so that new beginners have nothing to fear from a glut by over production of good-sized squabs. This we have proven to our own satisfaction when we introduced the large or royal squab to our best hotel and cafe trade in this market, during the past season, and it now looks as though our demand will be greater this coming season. The buyers of these large birds see they are worth the difference in price, that they have a better call for them once they introduce them to the consumer. Encourage all your buyers to invest in birds that produce large, plump squabs. It will pay them best in the end and make a better demand for their grade of birds."

On Feb. 16th, 1903, he offered us the following prices: Squabs weighing ten pounds to the dozen and up, $6 per dozen; nine pounds,

This order, filling eighty-five baskets, was shipped by us in February, 1903, to a Philadelphia breeder of fancy poultry who visited our place and saw for himself that we have the best stock. It filled an Adams Express car attached to the Federal Express, the fastest train out of Boston for the South.

$5.50 per dozen; eight pounds, $5 per dozen; seven pounds, $4 per dozen; six and one-half pounds, $3 per dozen; dark, $2.10 per dozen.

The above quotations are a good indication of what the New York market for squabs is.

One of the practical ways we have of helping our customers is to refer them to such first-class buyers of squabs as the firm above quoted. We will give the address of the above New York firm to you when you buy breeding stock of us.

SCRANTON MARKET.—The following letter is from Chandler and Short, commission merchants, 15 Lackawanna avenue, Scranton, Penn., dated Feb. 15, 1903: "We have yours in regard to squabs. They are worth from $2.75 to $3 per dozen, dressed, on our market. Whatever you ship, we will endeavor to get the very highest market prices for. All you have to do is to have the feathers picked off."

CLEVELAND MARKET.—The steward's department of the Union Club, 158 Euclid avenue, Cleveland, Ohio, sends the following letter under date of Feb. 13th, 1903: "I am in receipt of your letter of yesterday and beg to say regarding your questions about squabs, that they are worth to us from $3 to $3.50 per dozen for the best and largest squabs either dressed or in the feather."

W. H. Bennett, proprietor of Oyster Ocean Cafe, 368 Superior street, Cleveland, Ohio (Feb. 12, 1903): "I use about one and one-half dozen squabs a week. Price averages $3 per dozen the year through."

W. H. Seager, Sheriff street market, Cleveland, Ohio (Feb. 12, 1903): "I purchase squabs when offered in this market and have sent to California for them on special occasions. The market price varies from $2.40 to $4 per dozen."

Gibson Pinkett Company, Fulton market, 21-25 Prospect street, Cleveland, Ohio (Feb. 12, 1903): "We buy squabs and pay what they are worth. Price runs from $2.50 to $4 per dozen. We could use fifty dozen or more [illegible]."

KANSAS CITY MARKET.—The market for squabs here is steadily improving. Here are some letters bearing on the subject:

From James R. Peden & Co., 404 Walnut street, Kansas City, Mo. (Jan. 26, 1903): "Send your squabs to me. I have good, steady demand for them and will take all you can offer. Top prices paid, or handled on commission." (Mr. Peden ships squabs to New York city and other points east.)

W. M. Woods, produce company, stalls 12 and 13 west side, City Market, Kansas City, Mo. (Jan. 26, 1903): "The market for squabs is good. Prices range from $1 to $1.50 for common stock and from $1.80 to $2 and $2.25 for fancy. I am sure you will find a market for your squabs and if they come up to the mark you have set for them, will command a much better price. Kansas City market for squabs is growing. I will take your squabs at market price day received."

C. T. Wiggins, East entrance City market, Kansas City, Mo. (Jan. 26, 1903): "It is only a question of how many you can supply. I can handle all the squabs you will offer and will pay you good prices for them. The demand is strong and increasing. Hope you will soon make a start with me."

George O. Relf, steward, Midland Hotel, Kansas City, Mo. (Jan. 27, 1903): "We can use squabs almost any time at $2.75 per dozen. If you have some now we will take one or two dozen and if O. K. will very likely use them right along."

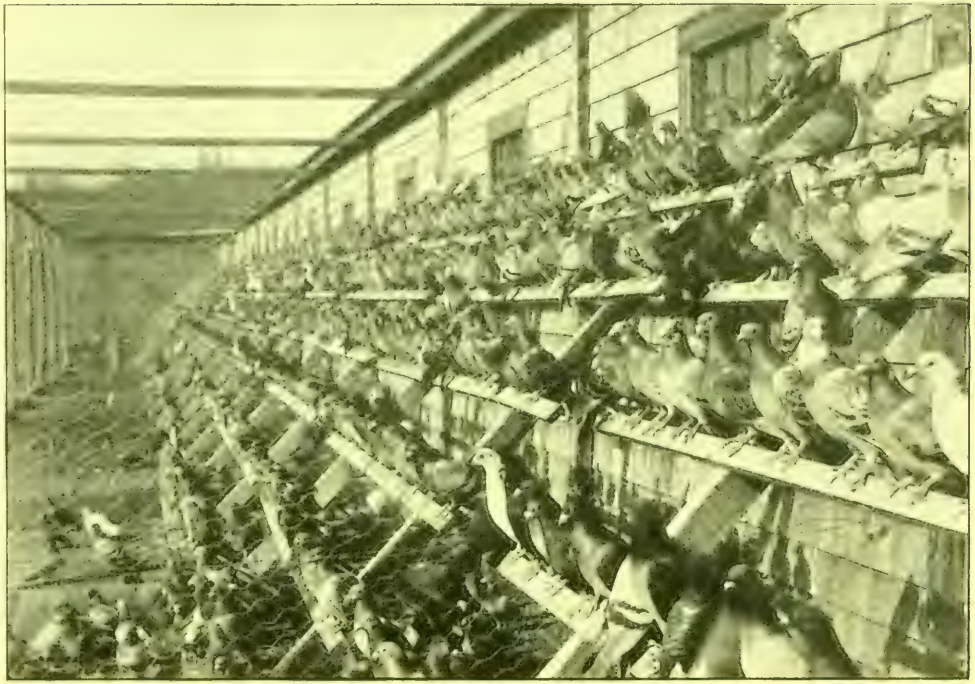
Ewins-Dean Hotel Co., proprietors Hotel Metropole (St. Joseph, Mo.) and Hotel Baltimore (Kansas City, Mo.) (Jan. 30, 1903): "Kindly quote me prices on squabs by the dozen. I have been using about two hundred per month and expect to use more. If your prices are right you will hear from me in a few days." (Signed) E. G. Venable, steward.

E. Klidey, the New Coates House, Kansas City, Mo. (Jan. 29, 1903): "We are using a few squabs which we buy from the commission men here at $2.50 per dozen. Let me know what price you want for yours and we may be able to use eight or ten dozen a week."

D. P. Ritchie, steward Hotel Baltimore, Kansas City, Mo. (Feb. 6, 1903): "Your favor of Jan. 27 received. We pay $2.75 per dozen for fancy squabs delivered, with feathers on."

OUR PIGEONS GOING AROUND CAPE HORN.—We have sent our breeding stock about everywhere, but one of the most curious orders we ever had is from Captain Lane of the ship Kennebec, which arrived in Boston in November, 1902, from Seattle, with a cargo of lumber. At this writing (Feb. 18, 1903), Capt. Lane is making arrangements with us to supply him with a breeding outfit of our Homers, which he will instal on his ship so that on his long return voyage to San Francisco (or Seattle) he will have fresh squab meat regularly. Capt. Lane is part owner of his big ship and is accompanied by his wife and young son. He has visited our place and knows about our birds and our methods.

SQUABS IN NEW MEXICO.—Here in the east we would not look upon New Mexico as a fancy market for squabs, but here is a letter from a customer in Albemarle, New Mexico, which proves that he is getting interested (Jan. 29, 1903): "The pigeons you sent me on the 20th were received yesterday in excellent condition, and am well pleased with them. Please find enclosed a money order for thirty dollars, for which send me twelve more pairs of your extra mated thoroughbred adult pigeons. Ship as before by Wells Fargo express."



VIEW OF PART OF THE SOUTH SIDE OF ONE OF OUR HOUSES.

Note the arrangement of outdoor perches. This is better than letting the birds up on to the roof. They can hear the squeaks of their young for food better. The top of the flying pen is strung from the eaves of the building, not the ridgepole.

SOUTHERN MARKET.—Our breeding stock has gone to every state in the South. If you live in any part of the South, you can market squabs as readily as poultry is marketed. One of our Southern customers, who lives in Citronelle, Alabama, has been to Boston to see us. Under date of January 30, 1903, he writes: "I have received Homers from two others, but they do not compare with yours. I will build my second house very soon as the first one is filling up fast."

LONG DISTANCE SHIPMENTS.—To all inquirers we wish to state again emphatically that we certainly do guarantee the safe arrival of every bird, no matter in what part of the world you live. We are learning all the time how to handle the long distance shipments best and experience has taught us little wrinkles about the baskets and the arrangements of the feed and water dishes which are valuable. The express messengers get their instructions not from guesswork or from written notices or tags, but from a board a foot square on which is printed in bold type the necessary directions. This winter (1903) we have shipped every week to California. One order of 200 pairs for Santa Ana, California, filled seventeen baskets. Of the 400 birds, only one turned up dead, but as we had sent along four more pairs than the order called for, we were seven birds ahead on the count. Another large shipment to San Rafael, California, in January, 1903, brought back by return mail the following letter, which we print exactly as we got it, word for word, and altogether it is one of the best recommendations for us to people who live at a distance that we ever received:

"Yesterday, A. M. (Jan. 20th) at 8.30 we received your letter advising us of the shipment of 100 pairs of Extra Mated Homers, on Jan. 14th; advising also that the pigeons would reach us before the letter. Well, they did not arrive until 4.30 today, Jan. 21 (7) seven days on the road. We notice that seven days is also required to get your shipments to Los Angeles; and when you assume that they will reach here at or before the receipt of notice of shipment we think you are mistaken. Nevertheless, be this as it may, the birds reached us tonight at 5.30, every bird in first-class shape—every individual one being in first-class shape; giving evidence of being shipped in perfect condition and having plenty of feed and water en route. Your feed ran short, as evidenced by charges of 40 cents made by express company for feed provided by them, which we are only too glad to pay, and at same time shows care and attention of express company messengers—a good fault. Every bird in the lot is bright and active, and they come into a first-class home, a fine house and flying pen, plenty of feed and a galvanized iron pan 6 inches deep with water 4 inches deep running constantly. Dimensions of pan, 4 feet 6 inches by 2 feet 10 inches, guaranteeing plenty of bathing facilities. They were liberated after dark, but the early morning will afford all the bathing facilities they will need, and we prophesy they will embrace the opportunities afforded at first opportunity. We wish to compliment you on your prompt methods of doing business, and on the superiority of the birds shipped us. They were indeed high class birds, in fact, Mr. Rice, they are better stock than we expected to receive. Your sending us 4 extra pairs above order was a graceful act on your part, one which we fully appreciate, and thank you right here for it. Your shipment was nearly a week before we expected it, but by extra exertion we got all ready in time and they have a fine home. Express charges at $14 per hundred Boston to San Rafael, 270 lbs. weight of shipment, amounted to $37.80 plus 40 cents for feed, $38.20 total, at merchandise rate. Still at rate given in your circular $4 for 24 birds (12 pairs), this is too much by a margin. $4 rate to San Francisco per 12 pairs is not just correct, still we are not kicking, for the difference is not very much. Note this, 201 birds came out of those baskets, now we are sure, absolutely sure of the count; two people kept count as each bird was liberated and 201 birds came out of the crates. If 100 pairs are mated, what will we do for that poor lone bird? We await for suggestions; pretty tough on that lone bird, 3,500 miles from home, but he or she is here sure. In conclusion we thank you for your promptness, your honesty and your fair, square dealing and will keep you posted as to our progress as per your suggestion. We thank you for the crates; they are fine. We wrote you yesterday and look for reply in accordance with your usual promptness."

We sent the above letter to Mr. R. H. Dwight, agent for the Wells-Fargo Express Company in Boston, and he was quite as pleased as we were. Through Mr. Dwight's co-operation our through western shipments by the Wells-Fargo have been a remarkable success. The only difficulty we have ever had on account of long distance trade came when we were shipping in crates, not baskets. We sent a large order into San Francisco and on the way four of the crates were broken into by rough handling and forty-two birds got away. The Wells-Fargo Express Company settled with us for the loss of those birds and we made good to the customer, sending the missing birds on, and the customer was out not a cent for further express charges, for the Wells-Fargo people carried the birds deadhead.

The baskets in which we now ship cannot be broken open except with the aid of an axe and they can be thrown ten feet across a depot platform without being injured.

GROUP OF OUR HOMERS.

Note their large frame and plumpness.

There is a minor criticism in the above letter in the matter of express charges. According to the figures which we give in the circular headed "Express Rates," the customer should have been asked to pay about $33, instead of $37, as he did pay. We believe the figures which we give to be correct in every case—the slight variation which may come as it came in this case is due to the fact that no two persons will weigh up the same lot of goods exactly the same, and that, of course, the birds vary in weight. The weight when the shipment starts is less than when it finishes, because at the end the bottoms of the baskets are covered with manure. (The grain which we send for feed is not weighed in and charged for transportation.) If the waybill is lost or delayed, and the agent at destination weighs the shipment, he will get a greater weight, and consequently a higher rate, than the express employee who weighed the shipment here in Boston.

We wish to say further that if you think we have figured the express rates to you too low, send us money which we claim to be correct and we will prepay all charges, thus putting on ourselves and not on you the difference, if there is any.

COMMON PIGEONS AGAIN.—We have had some of the old-time raisers of squabs from common pigeons on the ranches in the Middle West write us for more proofs that Homers are ahead of common pigeons.

In reply we will print here the letter which we received in January, 1903, from a customer as follows:

"I have for sale between four and five hundred pen fed common pigeons. Can you use them, and at what price? Should you not be in a position to use them yourself probably you could refer me to some one that is in the market for some fine pen fed birds. The Homers which I purchased of you some time last summer are doing very nicely, and have to make more room for them is the reason of wanting to dispose of my common birds. Thanking you in advance for favor asked."

We asked him to tell us if he had not found our Homers more profitable than common pigeons. He replied as follows:

"In reply to yours will say that your statement of the Homers being more profitable than the common birds is true, as the fact has been demonstrated to me in the past five or six months, by my experience of having the two lots side by side in separate pens. My common birds referred to are fine birds and will sell them F. O. B. at $2.50 per dozen, which, taking the plumpness of the bird in consideration, is very reasonable."

The above breeder lives in Missouri and we expect to sell a good many of our Homers to him and to those in his state who know of his experience. His letters are at our Boston office, where they may be seen. We will not give his name by mail because he is a customer, but if you think the above letters are made up by us, you write to the Boston office of Dun's or Bradstreet's commercial agencies and ask for one of their men to be sent to our office to investigate.

PIGEON MANURE.—Our advice in the Manual as to pigeon manure has interested pigeon breeders all over the country, nearly all of whom say that they never have taken pains to save it, and when it got too thick they have scraped it up as best they could and used it for fertilizer. They want to know how we keep it pure, and all about the market, etc.

The pigeon breeder who does not make provision for the purity of the manure and the steady sale of it is just throwing bank bills straight into the fire. We have erected a special building at our place for just the manure, and take every precaution to keep the manure free from straw, sawdust, sand, etc. The building stands at the back of one of the long houses, and about halfway in the whole plant, so that we can reach it easily with a wheelbarrow from the houses. There is a slide cut in the north wall of what we call No. 2 squab house, and through this slide the manure is shovelled from the wheelbarrow (standing in the passageway) directly into the manure house, where it stays until there is from $50 to $100 worth of it, when we bag it up and send it off. First we take the wheelbarrow empty down a passageway and stop at a unit pen, then go into the unit pen with a bushel basket and scrapers. We use a trowel to clean off the nest-pans, a tree-scraper to clean out the nest-boxes and a hoe or a floor chisel (same as is used to clean off snow and ice from city sidewalks), six inches wide at the blade and with a long handle so that it can be used easily while the operator is standing. In scraping the floor, the manure rolls up with little exertion off the blade of the chisel. It is shovelled into the bushel basket and the basket taken out into the passageway and dumped into the wheelbarrow. It takes one man not over thirty minutes to clean a pen thoroughly and the product of each pen is between two and three bushels, or from $1.20 to $1.80 for half an hour's work, which is pretty good pay. (We have been getting in the winter of 1903 sixty cents a bushel from the American Hide and Leather Company of Lowell, Mass.) We ship the manure by freight in bags. We buy these bags when we can from farmers who have large herds of cows and who use considerable grain, and they let the bags go for one and two cents apiece. Second-hand bags in the Boston junk shops cost from four to nine cents apiece. The leather people let

the bags pile up and then send them back to us in a bunch. We are particular to save not only the manure in the unit pens, but in the sorting and mating cages and coops. We cover the floors of these cages with burlap, not tacking the burlap down, but stretching it over three finish nails tacked at the backs of the cages and two nails tacked at the front of the cages. The manure cakes and dries on the burlap as it would on the floor. When there is a layer about half an inch thick, all tramped hard, dry and odorless by the constant hammering of the feet of the birds, we take the burlap off the nails and stretch it outside, bottom up, then sprinkle water on the back and the manure drops off in large cakes. The burlap then is dried and replaced. This method saves an immense amount of time which otherwise would be consumed in scraping the floors of the cages. We have 108 of these cages at the farm and in our Boston shipping room, each capable of holding from 12 to 20 pairs of birds, and we have burlap carpets on all of them. We use a large amount of burlap not only for this purpose but for small grain bags to go with orders for breeders to distant points, and also for the floors of our shipping baskets. We buy this burlap in large rolls weighing 150 pounds and containing from 300 to 320 square yards. We do not hem it or sew it in any way for the cages, simply cut it and in stretching it over the nails fold the raw edges under.

Having read the Manual, you know that we do not use sand or sawdust in our squab houses, so we are able to deliver manure which is absolutely pure. The tanneries do not like to get lots of impure manure and of course pay more for the unadulterated article. It is just as easy and more business-like to keep this by-product pure.

The manure in the houses has no odor, but when we have got it scraped up and banked in the manure house, it gives forth a pungent, ammonia-like smell. As the manure house is entirely cut off from the squab houses by the slide in the passage-way, this pungency does not trouble anyone. It is not a nasty smell, anyway.

We have had customers from as far off as Illinois write that they were quite charmed with our story about the manure, and that they were saving up bags of it to ship by freight to the American Hide and Leather Company at Lowell, Mass. This tannery is a branch of the Leather Trust, which has other tanneries, so use your wits and find out which tannery is nearest you, and ship to that one. If you can find a tannery not in the trust, sell to that, if you wish to. If you sell to a trust tannery, the check which pays you will come from the New York office of the trust, same as ours do. We recommend our New England customers to ship to Lowell. We have always found the leather people square in measuring the manure, in fact they have given us credit on two or three occasions for more than we thought we had. They pay after you have sent your bill of lading and the report of the measurer has gone to the New York office. You need not be afraid of swamping the leather trust with pigeon manure. They will take all you can scrape up. They use it to take the hair off the raw hides, and it is said to be the only substance which will do this job thoroughly without injuring the hide. Chemicals which are used as substitutes when pigeon manure cannot be had are said to be injurious to the hide.

We write the above to help you sell the manure from your squab houses. Do not ask us to advise you further on this point, for we cannot. If you cannot find a tannery within shipping distance, try the florists. We are informed that the florists' exchange in New York city is a good place to sell pigeon manure, and customers near that city have told us that they are selling there.

SQUABS IN THE POULTRY PRESS.—The magazines devoted to poultry are beginning to take up squabs on account of the increasing interest shown by poultrymen in the subject. In the Poultry Keeper for Nov. 15th, 1902, appeared a contribution by A. P. Spiller. After giving the general arrangements for caring for the birds, he says: "At about four weeks of age the squabs are ready for market. Some markets require them dressed, others only killed. Good breeding pigeons will hatch and rear from six to eleven pair of young a year. The cost to keep a pair of breeders, including the raising of the young, at the present time is about eighty cents a year, this, of course, varying some with location and cost of feeding stuff. Wild game birds are becoming more scarce each year. The properly raised squab pigeon comes nearer taking the place of these wild birds than anything else. That they make fine eating, those who have eaten them can not deny. There is always a ready sale for good plump squabs at hotels, restaurants, markets and private families, prices ranging from $2.50 to $4.50 per dozen, depending upon quality and season. When one begins to raise pigeons it is better to try to secure strains from some reliable breeder who has stock bred along profitable lines. There is a difference in regard to breeding and feeding qualities and results obtained which warrants the paying of a little more at the start in obtaining more profitable stock. The writer is in favor of the straight Homer, carefully selected as to size, shape, breeding and feeding qualities, as it is well known that the Homer pigeon is one of the best feeders and breeders of any variety, and the numbers they will produce in a year more than balance any slight

advantage that may be obtained in size. The breeding of pigeons is fascinating to most people. It is true there are some losses, but with care and some experience in management the few losses that occur to the beginner may be reduced to a very small percentage. The work is light and not as exacting as in some other lines, affording a lucrative employment almost from the start to those who are not strong, as well as to the most robust. A flock once mated will give but little concern to their owner, as they remain constant for life regardless of the numbers contained in the flock, and for years will amply repay in profit and pleasure for the feed and care given them."

We wish to call the special attention of our readers to that portion of the above article by Mr. Spiller where he says that the cost of a pair of breeders is eighty cents a year. We say the cost is sixty cents a year. In his article, Mr. Spiller says nothing about keeping the pigeon manure free from dirt and selling it to tanneries. This must be done in order to hold the feed bill down to its lowest notch. We say that the manure will pay one-third of the grain bill, and taking Mr. Spiller's figure of eighty cents, and deducting one-third from it, we have as the net cost fifty-three cents.

We asked one of our friends living in West Newton, Mass., to ask Mr. Spiller if his estimate of cost was made when he was saving the manure and selling it to tanneries. Mr. Spiller replied by letter as follows under date of Feb. 16th, 1903: "No, the manure was not taken into consideration at all. I do not know what the tanneries pay for it."

The owners of large flocks of common pigeons in the West who are breeding squabs for market do not sell the manure and for this reason they lose an important source of revenue. It is remarkable to us that pigeons pay with them at all. Certainly the manure is a very important by-product, and you should figure on selling it just as you figure on selling the squabs.

NEWSPAPER MARKET QUOTATIONS.—Only a few of the daily newspapers of the country are in the habit of printing regularly market quotations on squabs. The Boston Globe has an article about once a week for the information of the household and in this article squabs are regularly quoted. At Thanksgiving time, 1902, the Globe quoted squabs at from $4 to $5 per dozen. In the Globe of Feb. 14th, 1903, squabs were quoted at $4.50 and $5 per dozen. If our New England customers will buy a copy of the Friday or Saturday Globe each week, they will probably find this household article containing the quotations for squabs on one of those days.

Our customers sometimes cut from the newspapers quotations for squabs and send them to us. In the winter of 1902 we received a clipping from the New York Evening Sun of Feb. 28, 1902, in which white squabs were quoted at $5 a dozen and dark squabs at $3.50 a dozen. We are told that the New York Evening Sun prints every Friday evening a household market column giving quotations on squabs.

The Rural New Yorker, an old-established and progressive farmers' weekly, printed the following quotations for squabs as wholesale prices ruling Feb. 6, 1903: "Squabs prime large white, per dozen, $3.75; mixed, $2.75 and $3; dark, $2 and $2.50."

The Albany (New York) Express, on Feb. 9, 1903, printed the following quotations: "Squabs, native, $5; Philadelphia squabs, $5 per dozen; pigeons, $1.50 per dozen."

The Chicago Tribune, on March 10, 1902, printed the following quotations: "Squabs, prime, large, white, per dozen, $3."

The St. Louis Republic, on Dec. 2, 1902, printed the following quotations: "Squabs, white, choice, dozen, $2.75 and $3; mixed, $2.25 and $2.50; prime dark, $1.87 and $2."

The San Francisco Chronicle, on April 2, 1902, printed the following quotations: "Pigeons, young, $2.50 and $2.75; ditto, old, $1.50 and $1.75."

SQUABS IN THE STATE OF WASHINGTON.—The squab raisers in New Jersey, New York and Pennsylvania are very well satisfied with the New York and Philadelphia markets for squabs, and we have done considerable talking about the New York market ourselves, but let us tell you that the market for squabs on the Pacific Coast is a fine one, too. Here in the East we think Seattle is a long way from home and you may find some city chaps around us who think that city is but just on the edge of the tall timber. If you live out in Michigan, Illinois, Minnesota, Indiana, Ohio, Kentucky, or any state in that section, you ought to feel pretty sure that the markets for squabs around you are good, after you have read what we are going to tell you here about the market for squabs in Seattle and its vicinity.

These letters were obtained for us by a customer who lives near Seattle:

Fulton Market, corner Second avenue and Columbia street, Seattle, Wash. (Feb. 11, 1903): "Yours at hand and will say that if your birds are as you say, we can use on an average of twenty dozen per week at $2.50 per dozen, feathers on."

A. D. Blowers & Co., 817-819 Western avenue, Seattle, Wash. (Feb. 12, 1903): "Your valued favor to hand regarding squabs. In reply will say that most of the squabs used in this city are brought from the east and held in cold storage, so that native birds will no doubt sell much better than this article. We have made some inquiry about them and find that it will be no trouble in selling four to six dozen a week, and no

View from Passageway.

View From Interior of Squab House.

Above are two views of a model made to illustrate what we call the dowel system of feeding and watering. It is a great time-saver in a long house. Between the floor of squab house and the lowest tier of nest boxes is one foot space. Fill this space with three-eighths inch doweling set one and one-half inches apart, as pictured. (This doweling comes in any length from a carpenter and is very cheap.) Set galvanized drinker and feed trough as shown. The trough has a three-quarter inch slot in its bottom so that the grains will fall into position ready for eating on the back side of the bottom strip into which the dowels are driven. The birds stick their heads through the dowels to eat and drink, and cannot foul either grain or water. Push a wheelbarrow with grain along the passageway and a house one hundred feet long can be attended to in fifteen minutes. Without this arrangement, if you go into each unit pen to feed and water, you will use up at least an hour, and it will be harder work. By this method you need enter the breeding pens only when killing or cleaning times come.

doubt many more, as the trade would open up. We do not think there is anyone in this part of the country who raises them for sale, and think if you can produce a good article that you will have no trouble whatever in selling them here. The price for eastern squabs is $2.25 to $2.50 per dozen. Some of the customers prefer to have them plucked, others alive. We think it would be better, perhaps, in the first shipment to send them alive until a regular trade was established. Our commission for selling them will be ten per cent. of the gross sales. If you have any nice ones, it would be well for you to send two to four dozen along and see what we can do with them for you."

(It is better to ship squabs killed and properly cooled. Do not send them alive to your market. Few butchers in the commission men's employ understand how to kill and cool a squab right. Do your own killing and cooling and packing as we have given you precise directions and you will know (not guess) that your product is reaching the consumer in perfect condition.)

Palace Market Co., Second avenue, Seattle, Wash. (Feb. 11, 1903): "Squabs such as you speak of would be worth 20 to 25 cents each. Would prefer the feathers on. We can use all you have."

California Commission Company, 923 Western avenue, Seattle, Wash. (Feb. 11, 1903): "Your favor to hand and contents noted. In reply we beg to state that squabs are selling from $2.50 to $3.50 per dozen, according to the quality of the birds. We want them with the feathers on and not drawn. You may ship us two or three dozen for a trial and then we will be better able to tell what we can do for you and see how many we can handle at a time. Our commission is ten per cent. on all goods. We are certain that we can give you entire satisfaction and know that our business methods will please you. We make prompt returns and keep shippers well posted on the market conditions. Trusting to be favored with your further valued orders."

C. W. Chamberlain & Co., 905-907 Western avenue, Seattle, Wash. (Feb. 13, 1903): "Yours of the 9th at hand and contents fully noted. Squabs, such as you mentioned, would sell here for about $3 per dozen. Our selling charge is ten per cent. Twelve to fifteen dozen per week could be disposed of from present information at hand. They should be shipped alive."

J. F. Gayton, steward Ranier Club (this club is composed of the richest men of Seattle), Seattle, Wash. (Feb. 13, 1903): "I am in receipt of your letter with regard to squabs. Yes, I want some squabs at any time. Will be glad to have them. I will take a dozen at 25 cents each, either dressed or undressed, three dollars per dozen. After I see the first birds I can tell whether I can take them regularly."

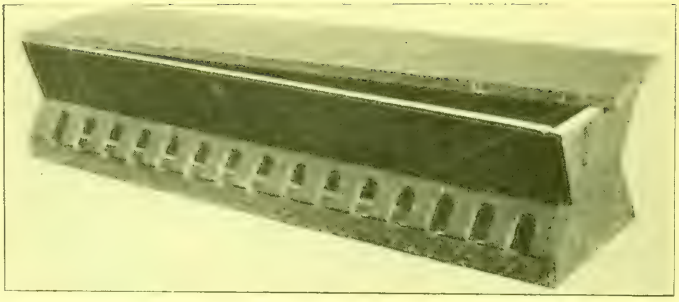
Williams Bros., Gilt Edge Cafe, Everett, Wash. (Feb. 12, 1903): "In reply to yours will say, I cannot say at present how many squabs I can use, but will start with two dozen a week, picked, at $2.50 per dozen. Ship as soon as you please and will look the market up for you in the meantime."

Gordon & Co., commission merchants, 811 Western avenue, Seattle, Wash. (Feb. 13, 1903): "Replying to your letter will say that we have telephoned to several of the hotels and restaurants here that would be apt to use squabs and we find that there are some places that make a specialty of using them and we do not believe we would have any trouble in disposing of them nicely. We would suggest that you send down a small box of them and let us show the customers just what they are and find out just what they will be willing to pay for them. They have been selling recently for 25 cents each. If you care to make this shipment, we will be glad to get it."

Seattle Market, Cor. First avenue south and Washington street, Seattle, Wash. (Feb. 10, 1903): "In reply to yours would say, it would be a good idea for you to ship us in two or three dozen squabs for sample, I could get the hotel and restaurant people's opinion on price and quality and be able to talk to you on quantity. Eastern frozen squabs are selling on this market for $2 to $2.25 per dozen. If your stock is as you say, I think it would be a better seller than frozen goods."

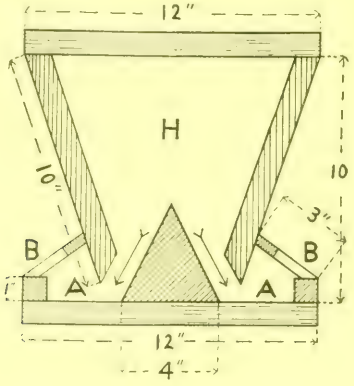
Maison Barberis, restaurant and dining parlors, 204-210 James street, Seattle, Wash. (Feb. 11, 1903): "We will take thirty dozen squabs every month; have them plucked, and will pay you $3 per dozen. Please answer and say about what day of the month you will send them in."

E. C. Klyce & Co., commission merchants, 906 Western avenue, Seattle, Wash. (Feb. 13, 1903): "Yours regarding squabs to hand. We have investigated the market here and find a good many of the first-class hotels and cafes will take them at very fair figures. There seems to be a variance of opinion as to what they will pay, but we presume that the supply has been very limited, and they would pay just about whatever the seller would ask in order to get them. We think the average price would be about $2.50 to $2.75 per dozen. Of course there would be some bidding among the different buyers in case they were scarce, and we might get more for them. We have immediate access by 'phone and salesmen with all our customers who serve squabs for short orders or otherwise. By this means you would be in close touch with the people most in need of them and would always try to get you top notch prices. We believe this is a good investment for you to grow them for this market. Of course you would have to start in and graduate up to find how large the volume of trade will be



SELF-FEEDER FOR GRAIN.

This trough gives excellent satisfaction with us. We do not sell it, but will tell you how to have it made. It is four feet long. At the bottom of this page you will see a sectional view of it. The grain is put into the hopper, H. It drops in the direction indicated by the arrows into the spaces, AA, where it is eaten by the birds. As fast as they eat, more drops down. The strip through which they stick their heads is three inches wide and the slots are cut with a band or keyhole saw. The V at the bottom of the trough is made from a solid piece of four by four. It is solid so that rats cannot get inside of it and hide and pilfer the grain. The inch-square pieces at the front of the bottom prevent the birds from pecking the grain out on to the floor. One-inch lumber is used in the construction for every part except the slot-boards, BB, which are three-eighths inches thick. The top and bottom are of twelve-inch boards, the sides of ten-inch boards. The top is held in place by a hook and eye at each end as pictured. The trough will hold from three days' to two weeks' supply of grain, depending on the size of the flock. Put the trough not in the flying pen, but inside the squab house. Or, you may build a half-trough (slot-board down one side only) and set it in the passageway, and it will fill the space between the lower tier of nest boxes and the floor. Here it may be filled from the passageway, and you will not have to enter the unit pen. We have tried all kinds of self-feeders and recommend this pattern as the best of all. If you adopt it in connection with the dowel system (illustrated on previous page) your dowels will be used only behind the drinker, this trough taking up four feet of the rest of the space. Make it either longer or shorter than four feet, to suit the size of your flock, if you wish.



that we can command you on them. Anything in the way of game, fowls or meats are staple sellers at good prices."

Hamm & Schmitz, Hotel Butler, Seattle, Wash. (Feb. 12, 1903): "In reply to yours, will say that we could use three dozen a week of the squabs and will pay three dollars per dozen for plucked birds, laid down here."

The above letters indicate to us that people in the state of Washington who eat squabs have to pay from $3 to $4 a dozen for the cold storage, frozen kind. Poor as these are (they are the lightweight squabs of common pigeons) they are in active demand. Of course the consumers would pay as much, and no doubt more, for fresh-killed squabs bred from our fine Homers. The commission men are certainly eager to get squabs. They are willing to pay from $2 to $3.50 per dozen. They resell them at a profit.

The above letter from E. C. Klyce & Co. is sensible and could well be written by any commission firm in any state in the Union, or by any commission firm anywhere that sells poultry, eggs and butter. Wherever there is a sale for hens and chickens, dressed or with feathers on, there is a sale for squabs at higher prices not only because they are a greater delicacy, but also because good eaters everywhere know they are a greater delicacy, and expect to pay, and do pay, more for squabs, pound for pound, than they pay for hens and chickens, geese and turkeys.

We ship to Seattle by the fastest express trains. The birds go from Boston to St. Paul (Minnesota) by the Wells-Fargo Express Company. At St. Paul the birds are taken by the Northern Pacific Express Company, which has charge of them to destination. Every express messenger in the employ of these two companies on this long route has handled our shipments and made a fine record, and is trained to the work of feeding and watering all sizes of shipments. Our Seattle trade can be sure that their shipments will be treated right and will reach them in perfect condition. That is what we guarantee.

MORE LETTERS.—Here are more letters from squab buyers, unclassified, as they came to us in the first part of February, 1903:

Allyn House, Hartford, Conn. (February, 1903): "In answer to yours will say we are continually using squabs. We buy them plucked in all cases. We pay all prices, according to size, age, and condition when received. They run from $2.25 to $3.25 per dozen. Sometimes the market is a little higher."

Russell House, Detroit, Michigan. (February, 1903): "In reply to your letter would say that we use quite a few squabs here. Am paying at present $2.50 per dozen for splendid stock. If you care to send me any at that, you to pay the express, I should be glad to have same."

Duquesne Club, Pittsburg, Penn. (Feb. 11, 1903): "Wish to know, if you have squabs of first quality, should you have about three dozen on hand, I would pay you per dozen, squabs plucked and delivered, from $3.50 to $3.75 per dozen. If price suits you please let me know." Signed by E. Max Heinrich, superintendent.

Lincoln Hotel, Lincoln, Nebraska. (Feb. 16, 1903): "Replying to your letter. We can use about two dozen squabs per week in our cafe at present. Will pay $2.50 per dozen delivered here, feathers on."

Hoted Victoria, Pittsburg, Penn. (Feb. 18, 1903): "In regard to your letter, will say, we use about one dozen or one and one-half dozen per week, just depends on the business, and will pay $3.50 per dozen delivered here at the hotel."

Fred Harvey, general office, Union Depot Annex, Kansas City, Missouri, Chicago office Cor. 17th street and Wentworth avenue. (Feb. 14, 1903): We can use 15 to 20 dozen squabs per week if the birds are very nice and the price reasonable. Can use them with feathers on. Do not know what we can afford to pay, it depends entirely on the birds. If you will please send three dozen squabs by Santa Fe baggage car to Kansas City, charging them at such a price that you can afford to furnish them, I will use them as a sample. If the birds are not of the right quality and the price is too high, we will not need any more, but if the birds and price are right, we can use quantity given above. I enclose baggage car shipping bill; be careful to fill it out correctly. This bill is made in duplicate: you hold one copy as your receipt and the other goes with the birds. Please put the squabs in a small box with a little ice."

Hotel Savoy, Ewins-Childs Hotel Co., proprietors, Kansas City Missouri. (Feb. 16, 1903): "What is your lowest price on best squabs in five dozen lots? We are not in the habit of sending out of town for our supplies, but if you have something better than we can get here, it is possible that we can do business with you." (Signed by George Thompson, steward).

Frank E. Miller, superintendent Dining Service, Missouri, Kansas & Texas Railway system, No. 707 Chestnut street, St. Louis, Missouri. (Feb. 16, 1903): "I have your favor relative to squabs. It is proper for you to state the price per dozen. We occupy eight or ten large dining stations and require a large number."

Hollenden Hotel, Cleveland, Ohio. (Feb. 19, 1903): "In reply to your letter making inquiry regarding squabs I will state that we are paying $3.00 per dozen for nice dressed squabs. We do not buy any unless they are fully dressed, no feathers on."

Louis A. Fisher, Manager Century Club, Cleveland, Ohio. (Feb. 17, 1903): "We buy all our squabs in New York as the prices of three and four dollars per dozen prevailing in this city are too high—that is, we buy cheaper in New York than here."

A. S. Barnett, steward Morton House, Grand Rapids, Michigan. (Feb. 11, 1903): "In reply to your inquiry in regard to what we would pay for squabs such as you have, we are paying $2.25 per dozen. Should you consider our price an object, would be pleased to learn how many you could furnish a week."

Hotel Schenlen, Pittsburg, Penn. (Feb. 10, 1903): "Your squabs must be according to the weight and you should find a ready market for such stock. Nice white squabs are bringing $3.50 today."

Hotel Rider, Cambridge Springs, Penn. (Feb. 11, 1903): "We can pay you $2.25 per dozen for genuine squabs (no pigeons) delivered here. Can use six or eight dozen at a time, but we do not want anything but young birds."

E. A. Goodrich & Co., commission merchants, 103 South Water street, Chicago, Illinois. (Feb. 13, 1903): "Your favor at hand. If you mean fat young pigeons that have left the nest and can fly, they are worth 75 cents to $1 per dozen, and the trade wants them alive. (This is the way the trade in Boston wants them, but they pay more). If you mean nestlings, or very young pigeons which have not left the nest and are unable to fly, we can get you $2 to $2.25 per dozen, dressed neatly. Either kind is good sale at prices named and can handle for you any quantity from five dozen to one hundred dozen. If nestling tie in one-half dozen bunches packed in ice and ship by express."

A FINAL WORD.—Our object in printing the letters from marketmen and other squab buyers, in this appendix, is to convince any intelligent man or woman that there is a market for him, provided he goes to raising squabs, no matter where he lives. We have hundreds of similar letters on hand, but we have not room to print all, and we think we have printed enough. If you are not convinced by what we have printed that there is a paying market for squabs within five hundred miles of you, do not write to us and ask us to tell you the names and addresses of squab buyers in your town or city, or your county, for that we may not be able to do, but sit down at your writing desk, or go out in person, and find out for yourself.

It is unnecessary to argue the squab market within anyone of common sense who lives east of the Mississippi and Missouri rivers, and on the Pacific coast, and within shipping distance of Denver. If you live in a barren territory or a foreign country, and wish to take up this subject with us, we will reply to the best of our ability, but remember that you are on the ground, and can find out such facts for yourself better than we can tell you.

This Manual is intended to be a book of facts, backed up by evidence. If anybody has any additional facts as to squabs which will improve this Manual, we will be glad to consider same, and will pay for them if accepted.

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